

Mackert, Susan (DEQ)

From: Cheryl St. Amant [camant@fcwsa.org]
Sent: Wednesday, February 27, 2013 2:27 PM
To: Mackert, Susan (DEQ)
Cc: Remington wwtp
Subject: Remington Permit Renewal - Expanded Effluent Tests
Attachments: Appendix A sampling 2012.pdf; expanded effluent testing 12513.pdf; Expanded effluent testing 21413.pdf

Susan,

We have completed the 2 additional expanded effluent tests. Attached are the test results that were submitted with the permit renewal and the 2 additional test results. This should complete the permit application requirement for 3 scans.

Please let me know if you need additional information.

Thanks.

Cheryl St. Amant
Associate General Manager Operations
Fauquier County Water & Sanitation Authority
540-349-2092
Cell: 703-587-3788



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

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FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|-----------------------------|--------|------|------------|---------|------------|------|------|
| 2,4-Dichlorophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 2,4-Dimethylphenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 2,4-Dinitrophenol | <16.0 | ug/l | 16.0 | EPA 625 | 04/09/12 | | GEC |
| 2-Chlorophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 2-Nitrophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 4,6-Dinitro-o-cresol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Chloro-3-methylphenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Nitrophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Pentachlorophenol | <16.0 | ug/l | 16.0 | EPA 625 | 04/09/12 | | GEC |
| Phenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 1,2,4-Trichlorobenzene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 1,2-Diphenylhydrazine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 2,4-Dinitrotoluene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 2,6-Dinitrotoluene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 2-Chloronaphthalene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 3,3-Dichlorobenzidine | <16.0 | ug/l | 16.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Bromophenyl phenyl ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Chlorophenyl phenyl ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Acenaphthene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Acenaphthylene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Anthracene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzidine | <50.0 | ug/l | 50.0 | EPA 625 | 04/09/12 | | GEC |
| Benzo(a)anthracene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(a)pyrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(ghi)perylene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(k)fluoranthene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Bis(2-Chloroethoxy)methane | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Bis(2-Chloroethyl)ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date:
VA LAB ID#

May 18, 2012
460019
* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 4

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlyse Date | Time | Init |
|-----------------------------|--------|------|------------|---------|-------------|-------|------|
| Bis(2-Chloroisopropyl)ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Bis(2-Ethylhexyl)Phthalate | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Butylbenzyl Phthalate | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Chrysene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Di-n-butyl Phthalate | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Di-n-octyl Phthalate | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Dibenzo(a,h)anthracene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Diethyl Phthalate | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Dimethyl Phthalate | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Fluoranthrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Fluorene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Hexachlorobenzene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Hexachlorobutadiene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Hexachlorocyclopentadiene | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Hexachloroethane | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Indeno(1,2,3-cd)pyrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Isophorone | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| N-nitrosodi-n-propylamine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| N-nitrosodimethylamine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| N-nitrosodiphenylamine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Naphthalene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Nitrobenzene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Phenanthrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Pyrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(b)fluoranthene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Volatiles: | -- | | | | 00/00/00 | | -- |
| 1,1,1-Trichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,1,2,2-Tetrachloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012
VA LAB ID# 460019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 5

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Analys Date | Time | Init |
|---------------------------|--------|------|------------|---------|-------------|-------|------|
| 1,1,2-Trichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,2-Dichlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,1-Dichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,1-Dichloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,2-Dichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,2-Dichloropropane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 2-Chloroethylvinylether | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Acrolein | <30.0 | ug/l | 30.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Acrylonitrile | <5.0 | ug/l | 5.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Benzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Bromoform | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Bromomethane | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Carbon Tetrachloride | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chlorodibromomethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chloroform | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chloromethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| cis-1,3-Dichloropropene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Dichlorobromomethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Ethylbenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Methylene Chloride | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Tetrachloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Toluene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| trans-1,2-Dichloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| trans-1,3-Dichloropropene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Trichloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Trichlorofluoromethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012
VA LAB ID# 460019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 6

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|---------------------------|--------|-------|------------|--------------|------------|-------|------|
| Vinyl Chloride | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,3-Dichlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,4-Dichlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Total Xylene | <10.0 | ug/l | 10.0 | SW-846 8021B | 04/11/12 | 08:02 | SJ |
| Gross Alpha* | 3.54 | pCi/L | 10.84 | EPA 900.0 | 04/09/12 | 09:00 | BPS |
| Gross Beta* | 11.50 | pCi/L | 8.01 | EPA 900.0 | 04/09/12 | 09:00 | BPS |
| Strontium 90* | 1.29 | pCi/L | 2.00 | EPA 905.0 | 04/23/12 | 08:38 | VXC |
| Tritium* | 157.8 | pCi/L | 1000.00 | EPA 906.0 | 04/16/12 | 14:30 | BPS |
| Ammonia, as N | <0.10 | mg/l | 0.10 | SM 4500NH3D | 04/06/12 | 15:15 | BW |
| Chloride | 215 | mg/l | 1.00 | SM 4500Cl-C | 04/05/12 | 12:00 | JW |
| Total Cyanide* | <0.005 | mg/l | 0.005 | EPA 335.4 | 04/12/12 | 12:59 | LEF |
| Total Hardness as CaCO3 | 372 | mg/l | 2 | SM 2340 C | 04/03/12 | 12:15 | JW |
| Hydrogen Sulfide* | <2.00 | mg/l | 2.00 | SM 4500S2F | 04/10/12 | 16:00 | JWB |
| Tributyltin* | <0.016 | ug/l | 0.016 | NBSIR85-3295 | 04/05/12 | | SM |
| Escherichia coli (100 ml) | <1 | MPN | 1 | COLILERT | 04/03/12 | 13:18 | JW |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date:
VA LAB ID#

May 18, 2012
460019
* Subcontracted test



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ <www.ess-services.com>

Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 01/25/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Exp. Effluent Testing

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

All methods used by ESS are Standard Methods, 19th edition unless otherwise noted.

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Angie Woodward

Approved by: _____

A. Woodward/Technical Director

Reviewers Initials AW





Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 01/25/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Exp. Effluent Testing

Sample ID#: 0011470 Sample Source: Effluent
Sample Date/Time: 12/27/2012 / 09:30 Date Received: 12/27/2012

| Parameter | Results | Unit | Report Limit | Method | Analysis Date | Time | INIT |
|------------------------------|-----------|------|--------------|----------------|---------------|-------|------|
| Antimony, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Arsenic, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Beryllium, Total Recoverable | <0.00400 | mg/l | 0.00400 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Cadmium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Chromium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Copper, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Lead, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Mercury, Total Recoverable | <0.000200 | mg/l | 0.000200 | EPA 245.2 | 01/02/2013 | 16:23 | 574 |
| Nickel, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Selenium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Silver, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Thallium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Zinc, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/02/2013 | 16:57 | 574 |
| Total Cyanide | <0.0200 | mg/l | 0.0200 | SM 18 4500CN E | 01/07/2013 | 15:30 | 574 |
| Phenols, Total | <0.0500 | mg/l | 0.0500 | EPA 420.1 | 01/08/2013 | 12:00 | 574 |
| Total Hardness as CaCO3 | 192 | mg/l | 2.00 | SM 19 2340C | 01/04/2013 | 14:50 | KW |
| 624 Volatiles | | | | | | | |
| Acrolein | <0.00500 | mg/l | 0.00500 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Acrylonitrile | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Benzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Dichlorobromomethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Bromoform | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Bromomethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Carbon Tetrachloride | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Chlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Chlorodibromomethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Chloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 2-Chloroethylvinylether | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Chloroform | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Chloromethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,2-Dichlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,3-Dichlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,4-Dichlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,1-Dichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,2-Dichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,1-Dichloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| trans-1,2-Dichloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |





Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 01/25/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Exp. Effluent Testing

Sample ID#: 0011470 Sample Source: Effluent
Sample Date/Time: 12/27/2012 / 09:30 Date Received: 12/27/2012

| Parameter | Results | Unit | Report Limit | Method | Analysis Date | Time | INIT |
|-----------------------------|----------|------|--------------|---------|---------------|-------|------|
| 1,2-Dichloropropane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| cis-1,3-Dichloropropene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| trans-1,3-Dichloropropene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Ethylbenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Methylene Chloride | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,1,2,2-Tetrachloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Tetrachloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Toluene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,1,1-Trichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 1,1,2-Trichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Trichloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| Vinyl Chloride | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/07/2013 | 15:30 | 574 |
| 625 Semi-Volatiles | | | | | | | |
| Acenaphthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Acenaphthylene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Anthracene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Benzidine | <0.0200 | mg/l | 0.0200 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Benzo(a)anthracene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Benzo(a)pyrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Benzo(b)fluoranthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Benzo(ghi)perylene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Benzo(k)fluoranthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 4-Bromophenyl phenyl ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Butylbenzyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 4-Chloro-3-methylphenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Bis(2-Chloroethoxy)methane | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Bis(2-Chloroethyl)ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Bis(2-Chloroisopropyl)ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2-Chloronaphthalene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2-Chlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 4-Chlorophenyl phenyl ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Chrysene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Di-n-butyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Di-n-octyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Dibenzo(a,h)anthracene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 3,3-Dichlorobenzidine | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2,4-Dichlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |





Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 01/25/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Exp. Effluent Testing

Sample ID#: 0011470
Sample Date/Time: 12/27/2012 / 09:30
Sample Source: Effluent
Date Received: 12/27/2012

| Parameter | Results | Unit | Report Limit | Method | Analysis Date | Time | INIT |
|----------------------------|---------|------|--------------|---------|---------------|-------|------|
| Diethyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2,4-Dimethylphenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Dimethyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2,4-Dinitrophenol | <0.0200 | mg/l | 0.0200 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2,4-Dinitrotoluene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2,6-Dinitrotoluene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 1,2-Diphenylhydrazine | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Bis(2-Ethylhexyl)Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Fluoranthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Fluorene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Hexachlorobenzene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Hexachlorobutadiene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Hexachlorocyclopentadiene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Hexachloroethane | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Indeno(1,2,3-cd)pyrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Isophorone | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 4,6-Dinitro-o-cresol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Naphthalene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Nitrobenzene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2-Nitrophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 4-Nitrophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| N-nitrosodimethylamine | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| N-nitrosodi-n-propylamine | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| N-nitrosodiphenylamine | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Pentachlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Phenanthrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Phenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| Pyrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 1,2,4-Trichlorobenzene | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |
| 2,4,6-Trichlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 12/28/2012 | 12:37 | 574 |

574 Samples subcontracted to VELAP ID# 460160



VELAP Lab ID # 460019 VA DW Lab ID # 00115

Revised 12/27/12



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ <www.ess-services.com>

Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 02/14/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Expanded Effluent Testing

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

All methods used by ESS are Standard Methods, 19th edition unless otherwise noted.

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Angie Woodward

Approved by: _____

A. Woodward/Technical Director

Reviewers Initials *AW*





Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 02/14/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Expanded Effluent Testing

Sample ID#: 0012648 Sample Source: Effluent
Sample Date/Time: 01/28/2013 / 07:00 Date Received: 01/28/2013

| Parameter | Results | Unit | Report Limit | Method | Analysis Date | Time | INIT |
|------------------------------|-----------|------|--------------|----------------|---------------|-------|------|
| Antimony, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Arsenic, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Beryllium, Total Recoverable | <0.00400 | mg/l | 0.00400 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Cadmium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Chromium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Copper, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Lead, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Mercury, Total Recoverable | <0.000200 | mg/l | 0.000200 | EPA 245.2 | 02/01/2013 | 17:47 | 574 |
| Nickel, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Selenium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Silver, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Thallium, Total Recoverable | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Zinc, Total Recoverable | 0.0591 | mg/l | 0.0500 | EPA 200.7 | 01/31/2013 | 15:43 | 574 |
| Total Cyanide | <0.0200 | mg/l | 0.0200 | SM 18 4500CN E | 01/31/2013 | 15:30 | 574 |
| Phenols, Total | <0.0500 | mg/l | 0.0500 | EPA 420.1 | 02/06/2013 | 12:00 | 574 |
| Total Hardness as CaCO3 | 350 | mg/l | 2.00 | SM 19 2340C | 02/05/2013 | 10:00 | KW |
| 624 Volatiles | | | | | | | |
| Acrolein | <0.00500 | mg/l | 0.00500 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Acrylonitrile | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Benzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Dichlorobromomethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Bromoform | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Bromomethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Carbon Tetrachloride | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Chlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Chlorodibromomethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 20:13 | 574 |
| Chloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 2-Chloroethylvinylether | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Chloroform | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Chloromethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,2-Dichlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,3-Dichlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,4-Dichlorobenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,1-Dichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,2-Dichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,1-Dichloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| trans-1,2-Dichloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |





Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 02/14/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Expanded Effluent Testing

Sample ID#: 0012648 Sample Source: Effluent
Sample Date/Time: 01/28/2013 / 07:00 Date Received: 01/28/2013

| Parameter | Results | Unit | Report Limit | Method | Analysis Date | Time | INIT |
|-----------------------------|----------|------|--------------|---------|---------------|-------|------|
| 1,2-Dichloropropane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| cis-1,3-Dichloropropene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| trans-1,3-Dichloropropene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Ethylbenzene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Methylene Chloride | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,1,2,2-Tetrachloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Tetrachloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Toluene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,1,1-Trichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 1,1,2-Trichloroethane | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Trichloroethene | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| Vinyl Chloride | <0.00200 | mg/l | 0.00200 | EPA 624 | 01/31/2013 | 12:57 | 574 |
| 625 Semi-Volatiles | | | | | | | |
| Acenaphthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Acenaphthylene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Anthracene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Benzidine | <0.0200 | mg/l | 0.0200 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Benzo(a)anthracene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Benzo(a)pyrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Benzo(b)fluoranthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Benzo(ghi)perylene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Benzo(k)fluoranthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 4-Bromophenyl phenyl ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Butylbenzyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 4-Chloro-3-methylphenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Bis(2-Chloroethoxy)methane | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Bis(2-Chloroethyl)ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Bis(2-Chloroisopropyl)ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2-Chloronaphthalene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2-Chlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 4-Chlorophenyl phenyl ether | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Chrysene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Di-n-butyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Di-n-octyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Dibenzo(a,h)anthracene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 3,3-Dichlorobenzidine | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2,4-Dichlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |





Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 02/14/2013
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Expanded Effluent Testing

Sample ID#: 0012648
Sample Date/Time: 01/28/2013 / 07:00
Sample Source: Effluent
Date Received: 01/28/2013

| Parameter | Results | Unit | Report Limit | Method | Analysis Date | Time | INIT |
|--------------------------------|---------|------|--------------|---------|---------------|-------|------|
| Diethyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2,4-Dimethylphenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Dimethyl Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2,4-Dinitrophenol | <0.0200 | mg/l | 0.0200 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2,4-Dinitrotoluene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2,6-Dinitrotoluene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 1,2-Diphenylhydrazine | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Bis(2-Ethylhexyl)Phthalate | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Fluoranthene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Fluorene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Hexachlorobenzene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Hexachlorobutadiene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Hexachlorocyclopentadiene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Hexachloroethane | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Indeno(1,2,3-cd)pyrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Isophorone | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 4,6-Dinitro-o-cresol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Naphthalene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Nitrobenzene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2-Nitrophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 4-Nitrophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| N-nitrosodimethylamine | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| N-nitrosodi-n-propylamine | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| N-nitrosodiphenylamine | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Pentachlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Phenanthrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Phenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| Pyrene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 1,2,4-Trichlorobenzene | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2,4,6-Trichlorophenol | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |
| 2,3,7,8-Tetrachlorodibenzodiox | <0.0100 | mg/l | 0.0100 | EPA 625 | 02/01/2013 | 09:13 | 574 |

574 Samples subcontracted to VELAP ID# 460160



VELAP Lab ID # 460019 VA DW Lab ID # 00115

ENVIRONMENTAL SYSTEMS SERVICE, LTD.




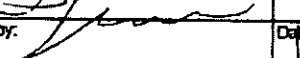
ESS
Engineering Systems Services Ltd

500 Stone St.
Post Office Box 736
Bedford, VA 24523
640-588-5413
Fax 640-588-5590

ANALYSES

540-825-6660 Fax 540-825-4961

Fbx 540-588-5590

| | | | | | | | | | |
|--|--|---------|------|---|---|-------------|------|---|--|
| Relinquished by: | | Date | Time | Received by: | | Date | Time | Received by: | |
| Travis Clark | | 1/24/13 | 110 |  | | 1/29/13 | 1302 |  | |
| Relinquished by: | | Date | Time | Received by: | | Date | Time | Received for Laboratory by: | |
| | | | |  | | 1/28/13 | 1308 |  | |
| Method of Delivery: | | | | On Ice? <input checked="" type="radio"/> Y <input type="radio"/> N | TAT: | W.O.# _____ | | Amt Paid \$ _____ | |
| <input type="checkbox"/> UPS <input type="checkbox"/> Fed Ex <input checked="" type="checkbox"/> Hand Delivery | | | | Received @ 2.6 | Normal _____ Rush _____ | W.O.# _____ | | Check # _____ | |
| <input type="checkbox"/> UPS <input type="checkbox"/> Post Office | | | | <input type="checkbox"/> Under 2 hours | Need Results by _____ Extra charges will apply for Rush TAT. | W.O.# _____ | | | |

Sample cond OK

Revised 12/27/12

Fauquier REMINGTON; 5408254961

12-27-12; 10:29AM:



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Page: 1

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

COMMENT: CHROM VI AND CHROM III WERE BOTH LESS THAN QL BASED
ON THE TOTAL CHROMIUM RESULT

TAG #: 59649
SAMPLE POINT: EFFLUENT

SAMPLE DATE:
04/03/2012

| Description | Result | Unit | Rpt. Limit | Method | Analys Date | Time | Init |
|------------------------------|-----------|------|------------|-----------|-------------|-------|------|
| Antimony, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Arsenic, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Cadmium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Chromium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Copper, Total Recoverable* | 0.0801 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Lead, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Mercury, Total Recoverable* | <0.000200 | mg/l | 0.000200 | EPA 245.2 | 04/10/12 | 15:54 | RW |
| Nickel, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Selenium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Silver, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Thallium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Zinc, Total Recoverable* | 0.0511 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Pesticides* | -- | | | | 00/00/00 | | -- |
| 4,4,DDD | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SND |
| 4,4,DDE | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SND |
| 4,4,DDT | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SND |
| Aldrin | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SND |
| Heptachlor Epoxide | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SND |
| Toxaphene | <1.0 | ug/l | 1.0 | EPA 608 | 04/09/12 | | SND |
| Alpha BHC | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SND |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012

VA LAB ID# 460019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 2

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|----------------------------|--------|------|------------|---------|------------|------|------|
| Beta BHC | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Delta BHC | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Gamma BHC (Lindane) | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Methoxychlor | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Mirex | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Chlordane | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Dieldrin | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endosulfan I | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endosulfan II | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endosulfan Sulfate | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endrin | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endrin Aldehyde | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Heptachlor | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Azinphos methyl (Guthion) | <1.0 | ug/l | 1.0 | EPA 622 | 04/09/12 | | CAC |
| Chlorpyrifos | <1.0 | ug/l | 1.0 | EPA 622 | 04/09/12 | | CAC |
| Demeton | <2.0 | ug/l | 2.0 | EPA 622 | 04/09/12 | | CAC |
| Malathion | <2.0 | ug/l | 2.0 | EPA 622 | 04/09/12 | | CAC |
| Parathion | <1.0 | ug/l | 1.0 | EPA 622 | 04/09/12 | | CAC |
| Polychlorinated Biphenyls* | -- | | | | 00/00/00 | | -- |
| Aroclor 1016 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1221 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1232 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1242 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1248 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1254 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1260 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Semi-Volatiles* | -- | | | | 00/00/00 | | -- |
| 2,4,6-Trichlorophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date:
VA LAB ID#

May 18, 2012
450019
* Subcontracted test

FAUQUIER COUNTY

WATER & SANITATION AUTHORITY

7172 Kennedy Road • Vint Hill Farms

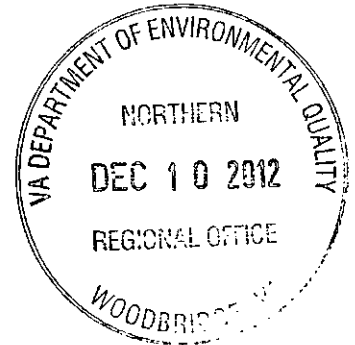
Warrenton, Virginia 20187-3907

Phone (540) 349-2092 • Fax (540) 347-7689



December 10, 2012

Ms. Susan Mackert
Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193



Subject: Permit Renewal Requests
E. Coli change in sample time
Reduction of testing

Reference: Remington WWTP
Permit # VA0076805

Dear Ms. Mackert:

Fauquier County Water and Sanitation Authority (FCWSA) has the following requests for the Remington permit renewal:

1. Request to change the e. coli sample time range.

FCWSA requests that the starting sample time for e. coli be changed from 10 am to 9 am. This will allow flexibility for staff to obtain the sample and transport to the outsourced laboratory for analysis. Attached are the flow records which indicate that at 9 am the flow has increased and is sustained such that the sample will be representative.

2. Request a reduction in sampling frequency for CBOD, TSS, e. coli and TKN (April –October)..

FCWSA requests that the sampling frequency for these parameters be reduced from 5 days per week to 3 days per week. The reduction request is based upon the excellent plant performance which can be verified through the attached four and one half (4 1/2) years of effluent data and recent DEQ facility inspection. The effluent data on these parameters show that the Remington plant is consistently and significantly below the effluent discharge requirements. A

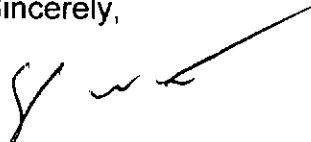
reduction will not impact the excellent plant performance or the process control of the Remington plant.

3. Request deletion of the requirement to test for zinc twice a year.

Zinc results for the past permit cycle have all been very low and in some results less than quantification level. The highest result was 59.9 mg/l in 2011. The permit for sludge is 2,800 mg/kg with maximum ceiling 7,500 mg/kg. Zinc does not appear to be a parameter that FCWSA continues to need to test for on a twice a year basis.

If you have any questions please contact me at (540) 349-2092.

Sincerely,



Cheryl St. Amant
Associate General Manager of Operations

Cc: Butch Farley, General Manager
File

| Month/Yr | | Remington WWTP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
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FAUQUIER COUNTY

WATER & SANITATION AUTHORITY

7172 Kennedy Road • Vint Hill Farms
Warrenton, Virginia 20187-3907
Phone (540) 349-2092 • Fax (540) 347-7689



September 4, 2012

Ms. Susan Mackert
Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193



Subject: Remington WWTP Permit Application Renewal

Reference: Remington WWTP
Permit # VA0076805

Dear Ms. Mackert:

Please find enclosed a completed permit renewal application for the Remington WWTP.

If you have any questions please contact me at (540) 349-2092.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cheryl St. Amant".

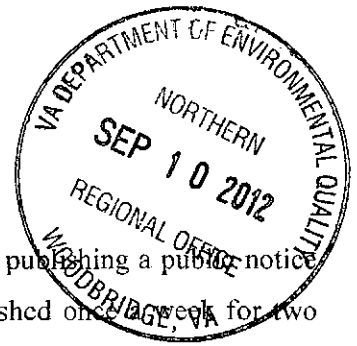
Cheryl St. Amant
Associate General Manager Operations

Cc: Butch Farley, General Manager
Remington WWTP
File

| Event | Date | Initials |
|---------|---------|-------------|
| Code: | | |
| Scanned | 9/10/12 | [Signature] |
| CC | | |

Entered CES
9-18-12
SL

PUBLIC NOTICE BILLING INFORMATION



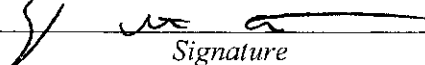
I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published on _____ week for two consecutive weeks in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed: Ms. Cheryl St. Amant / Associate General Manager

Owner: Fauquier County Water and Sanitation Authority

Applicant's Address: 7172 Kennedy Road
Warrenton, VA 20187

Agent's Telephone Number: (540) 349-2092

Authorizing Agent:  Signature

VPDES Permit No.: VA0076805
Facility Name: Remington WWTP

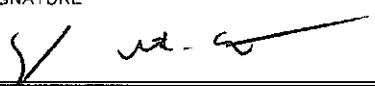
Please return to:

Susan Mackert
VA-DEQ, NRO
13901 Crown Court
Woodbridge, VA 22193-1453
Fax: (703) 583-3821

Have there been any changes in your operations or procedures since the above approval dates? Y (N)

| FORM 1 GENERAL | | U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.) | | I. EPA I.D. NUMBER | |
|---|--|---|----|---|---|
| | | | | S | F |
| | | | | 1 | 2 |
| LABEL ITEMS | | | | GENERAL INSTRUCTIONS | |
| I. EPA I.D. NUMBER | | | | If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected. | |
| III. FACILITY NAME | | PLEASE PLACE LABEL IN THIS SPACE | | | |
| V. FACILITY MAILING ADDRESS | | | | | |
| VI. FACILITY LOCATION | | | | | |
| II. POLLUTANT CHARACTERISTICS | | | | | |
| INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms . | | | | | |
| SPECIFIC QUESTIONS | | Mark "X" | | SPECIFIC QUESTIONS | |
| | | YES | NO | FORM ATTACHED | |
| A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | X | | X | |
| | | 16 | 17 | 18 | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | | | X | | |
| | | 22 | 23 | 24 | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | | | X | | |
| | | 26 | 29 | 30 | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | | X | | |
| | | 34 | 35 | 36 | |
| I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | | X | | |
| | | 40 | 41 | 42 | |
| B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | | X | | |
| | | 19 | 20 | 21 | |
| D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D) | | | X | | |
| | | 25 | 26 | 27 | |
| F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | | X | | |
| | | 31 | 32 | 33 | |
| H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | | X | | |
| | | 37 | 38 | 39 | |
| J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | | X | | |
| | | 43 | 44 | 45 | |
| III. NAME OF FACILITY | | | | | |
| C SKIP Remington Wastewater Treatment Plant | | | | | |
| 15 16 - 29 30 69 | | | | | |
| IV. FACILITY CONTACT | | | | | |
| A. NAME & TITLE (last, first, & title) | | | | | |
| B. PHONE (area code & no.) | | | | | |
| C 2 Searls, Raymond, Chief Operator (540) 439-2225 | | | | | |
| 15 16 45 46 48 49 51 52 55 | | | | | |
| V. FACILITY MAILING ADDRESS | | | | | |
| A. STREET OR P.O. BOX | | | | | |
| C 3 12523 Lucky Hill Road | | | | | |
| 15 16 45 | | | | | |
| B. CITY OR TOWN | | | | | |
| C 4 Remington | | | | | |
| 15 16 40 41 42 47 51 | | | | | |
| VI. FACILITY LOCATION | | | | | |
| A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER | | | | | |
| C 5 12523 Lucky Hill Road | | | | | |
| 15 16 45 | | | | | |
| B. COUNTY NAME | | | | | |
| Fauquier County | | | | | |
| 46 70 | | | | | |
| C. CITY OR TOWN | | | | | |
| D. STATE | | | | | |
| E. ZIP CODE | | | | | |
| F. COUNTY CODE (if known) | | | | | |
| C 6 Remington VA 22734 | | | | | |
| 15 16 40 41 42 47 51 52 54 | | | | | |

CONTINUED FROM THE FRONT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------|----|----|----|-------------|----|----|----|----|--|----|---|----|-----------------|--|----|----|----|--|----|-------------------------------|----|---|----|----------------|----|----|----|----|----|----|--|--|--|--|--|--|
| VII. SIC CODES (4-digit, in order of priority) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. FIRST | | | | | B. SECOND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | E | | | | C | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 15 | 16 | 17 | 18 | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 4952 (specify) Sewerage System | | | | | 7 (specify) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C. THIRD | | | | | D. FOURTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | E | | | | C | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 15 | 16 | 17 | 18 | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 (specify) | | | | | 7 (specify) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VIII. OPERATOR INFORMATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. NAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | | B. Is the name listed in Item VIII-A also the owner? | | | | | | | | | | | | | | | | | | |
| 15 | 8 Searls, Raymond | | | | | | | | | | | | | | | | | | 55 66 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | | | | | | | | | | | | | | | |
| C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify) | | | | | | | | | | D. PHONE (area code & no.) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F = FEDERAL S = STATE P = PRIVATE M = PUBLIC (other than federal or state) O = OTHER (specify) | | | | | | | | | | P (specify) 56 | | 6 A (540) 493-2225 15 16 17 18 19 20 21 22 23 24 25 | | | | | | | | | | | | | | | | | | | | | | | | | |
| E. STREET OR P.O. BOX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12523 Lucky Hill Road | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. CITY OR TOWN | | | | | | | | | | G. STATE | | H. ZIP CODE | | IX. INDIAN LAND | | | | | | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | | VA | | 22734 | | Is the facility located on Indian lands? | | | | | | | | | | | | | | |
| 15 | 8 Remington | | | | | | | | | | | | | | | | | | 40 41 | | 42 43 44 45 46 47 48 49 50 51 | | 52 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | | | | | | | | | | | |
| X. EXISTING ENVIRONMENTAL PERMITS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. NPDES (Discharges to Surface Water) | | | | | | | | | | D. PSD (Air Emissions from Proposed Sources) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | T | I | | | | | | | | | | | | | | | | | C | T | I | | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | |
| 9 N VA 0076805 | | | | | | | | | | 9 P | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. UIC (Underground Injection of Fluids) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | T | I | | | | | | | | | | | | | | | | | C | T | I | | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | |
| 9 U | | | | | | | | | | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C. RCRA (Hazardous Wastes) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | T | I | | | | | | | | | | | | | | | | | C | T | I | | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | |
| 9 R | | | | | | | | | | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XI. MAP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XII. NATURE OF BUSINESS (provide a brief description) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A 2.0 MGD Wastewater Treatment Plant. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XIII. CERTIFICATION (see instructions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. NAME & OFFICIAL TITLE (type or print) | | | | | | | | | | | | | | | B. SIGNATURE | | | | | | | | | | C. DATE SIGNED | | | | | | | | | | | | |
| Cheryl St. Amant Associate General Manager Operation | | | | | | | | | | | | | | |  | | | | | | | | | | 8/30/12 | | | | | | | | | | | | |
| COMMENTS FOR OFFICIAL USE ONLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Attachment A

FACILITY NAME AND PERMIT NUMBER:Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

**FORM
2A
NPDES****NPDES FORM 2A APPLICATION OVERVIEW****APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow \geq 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 - 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 - 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name Remington Wastewater Treatment PlantMailing Address 12523 Lucky Hill Road
Remington, VA 22734Contact person Raymond SearlsTitle Chief OperatorTelephone number (540) 439-2225Facility Address 12523 Lucky Hill Road
(not P.O. Box) Remington, VA 22734

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name Fauquier County Water & Sanitation AuthorityMailing Address 7172 Kennedy Road
Warrenton, VA 20187Contact person Cheryl St. AmantTitle Associate General Manager OperationsTelephone number (540) 349-2092

Is the applicant the owner or operator (or both) of the treatment works?



owner



operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility

applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA 0076805PSD N/AUIC N/AOther N/ARCRA N/AOther N/A

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

| Name | Population Served | Type of Collection System | Ownership |
|--------------------------|-------------------|---------------------------|--------------|
| <u>Town of Remington</u> | <u>816</u> | <u>Separate</u> | <u>FCWSA</u> |
| <u>Bealeton</u> | <u>1,293</u> | <u>Separate</u> | <u>FCWSA</u> |
| <u>Opal</u> | <u>114</u> | <u>Separate</u> | <u>FCWSA</u> |

Total population served 2,223 connections

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 2.0
- mgd
- (TIERED TO 2.5 MGD)**

| | Two Years Ago | Last Year | This Year |
|-----------------------------------|---------------|---------------|-------------------|
| b. Annual average daily flow rate | <u>0.8479</u> | <u>0.8082</u> | <u>0.9681</u> mgd |
| c. Maximum daily flow rate | <u>1.8739</u> | <u>2.1389</u> | <u>2.4668</u> mgd |

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %
☐ Combined storm and sanitary sewer N/A %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?
- ☒
- Yes
- ☐
- No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1
ii. Discharges of untreated or partially treated effluent 0
iii. Combined sewer overflow points 0
iv. Constructed emergency overflows (prior to the headworks) 0
v. Other 0

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?

☐ Yes ☒ No

If yes, provide the following for each surface impoundment:

Location: N/AAnnual average daily volume discharged to surface impoundment(s) N/A mgdIs discharge ☐ continuous or ☐ intermittent?

- c. Does the treatment works land-apply treated wastewater?

☐ Yes ☒ No

If yes, provide the following for each land application site:

Location: N/ANumber of acres: N/AAnnual average daily volume applied to site: N/A MgdIs land application ☐ continuous or ☐ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?

☐ Yes ☒ No

FACILITY NAME AND PERMIT NUMBER:Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

N/A

If transport is by a party other than the applicant, provide:

Transporter name: N/AMailing Address: N/AContact person: N/ATitle: N/A

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: N/AMailing Address: N/AContact person: N/ATitle: N/A

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge.

N/A

Provide the average daily flow rate from the treatment works into the receiving facility.

N/A mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

☐ Yes☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

N/A

Annual daily volume disposed of by this method:

N/A

Is disposal through this method

☐ continuous or ☐ intermittent?

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001
- b. Location Remington 22734
(City or town, if applicable) (Zip Code)
Fauquier County VA
(County) (State)
38° 31' 33" 77° 48' 42"
(Latitude) (Longitude)
- c. Distance from shore (if applicable) 15 ft.
- d. Depth below surface (if applicable) 6 ft.
- e. Average daily flow rate 0.9 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? Yes ☒ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: N/A
- Average duration of each discharge: N/A
- Average flow per discharge: N/A mgd
- Months in which discharge occurs: N/A
- g. Is outfall equipped with a diffuser? Yes ☒ No

A.10. Description of Receiving Waters.

- a. Name of receiving water Rappahannock River
- b. Name of watershed (if known) Rappahannock
- United States Soil Conservation Service 14-digit watershed code (if known): N/A
- c. Name of State Management/River Basin (if known): Rappahannock
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): N/A
- d. Critical low flow of receiving stream (if applicable):
acute N/A cfs chronic N/A cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

- a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary
☒ Advanced ☐ Other. Describe: _____

- b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal 95 - 100 %
 Design SS removal 95 - 100 %
 Design P removal 90 %
 Design N removal 90 %
 Other N/A %

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Ultraviolet disinfection

If disinfection is by chlorination, is dechlorination used for this outfall? ☐ Yes ☒ No

- d. Does the treatment plant have post aeration?

☒ Yes ☐ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

| PARAMETER | MAXIMUM DAILY VALUE | | AVERAGE DAILY VALUE | | |
|----------------------|---------------------|-------|---------------------|-------|-------------------|
| | Value | Units | Value | Units | Number of Samples |
| pH (Minimum) | 6.89 | s.u. | | | |
| pH (Maximum) | 7.89 | s.u. | | | |
| Flow Rate | 2.071 | mgd | 0.852 | mgd | 1640 |
| Temperature (Winter) | 16.11 | C | 14.78 | C | 820 |
| Temperature (Summer) | 24.4 | C | 22.75 | C | 820 |

* For pH please report a minimum and a maximum daily value

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML / MDL |
|-----------|-------------------------|-------|-------------------------|-------|-------------------|-------------------|----------|
| | Conc. | Units | Conc. | Units | Number of Samples | | |

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

| | | | | | | | | |
|--|--------|------|------|------|-------|------|-----------|----------|
| BIOCHEMICAL OXYGEN DEMAND (Report one) | BOD-5 | N/A | mg/l | N/A | mg/l | N/A | N/A | N/A |
| | CBOD-5 | 1.69 | mg/l | 0.91 | mg/l | 1080 | SM195210B | 2.0 mg/l |
| FECAL COLIFORM | | | | 9.00 | n/cml | 1080 | SM9223 | 2 n/cml |
| TOTAL SUSPENDED SOLIDS (TSS) | | 3.49 | mg/l | 2.24 | mg/l | 1080 | SM192540D | 1.0 mg/l |

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

9,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The I/I program is an ongoing program with CCTV identifying problems and corrective actions taken as necessary.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

SEE ATTACHMENT A

- The area surrounding the treatment plant, including all unit processes.
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

SEE ATTACHMENT B

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: N/A

Mailing Address: N/A

Telephone Number: _____

Responsibilities of Contractor: N/A

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

N/A

- b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

Yes No

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- c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

N/A

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

| Implementation Stage | Schedule | Actual Completion |
|----------------------------|----------------|-------------------|
| | MM / DD / YYYY | MM / DD / YYYY |
| - Begin construction | ___/___/___ | ___/___/___ |
| - End construction | ___/___/___ | ___/___/___ |
| - Begin discharge | ___/___/___ | ___/___/___ |
| - Attain operational level | ___/___/___ | ___/___/___ |

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly: N/A

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML / MDL |
|---|-------------------------|-------|-------------------------|-------|-------------------|-------------------|-----------|
| | Conc. | Units | Conc. | Units | Number of Samples | | |
| CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS. | | | | | | | |
| AMMONIA (as N) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| CHLORINE (TOTAL RESIDUAL, TRC) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| DISSOLVED OXYGEN | 11.4 | mg/l | 7.2 | mgL | 1640 | SM4500OG | 0.01 mg/l |
| TOTAL KJELDAHL NITROGEN (TKN) | 2.19 | mg/l | 1.81 | mg/l | 936 | SM184500NH3C | 0.1mg/l |
| NITRATE PLUS NITRITE NITROGEN | 3.67 | mg/l | 2.48 | mg/l | 54 | SM2045NO3F | 0.1 mg/l |
| OIL and GREASE | 13.9 | mg/l | 4.6 | mg/l | 3 | EPA 1664A | 5.0 mg/l |
| PHOSPHORUS (Total) | 0.41 | mg/l | 0.20 | mg/l | 54 | SM194500PE | 0.05 mg/l |
| TOTAL DISSOLVED SOLIDS (TDS) | 1040 | mg/l | 1020 | mg/l | 3 | SM19 2540C | 10.0 mg/l |
| OTHER | | | | | | | |

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

BASIC APPLICATION INFORMATION**PART C. CERTIFICATION**

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

☒ Part D (Expanded Effluent Testing Data)☒ Part E (Toxicity Testing: Biomonitoring Data)☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)☐ Part G (Combined Sewer Systems)**ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Cheryl St. Amant, Associate General Manager OperationsSignature Telephone number (540) 349-2092Date signed 8/30/12

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

SEE ATTACHMENT C FOR RESULTS

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|---|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|-------------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS. | | | | | | | | | | | |
| ANTIMONY | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| ARSENIC | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| BERYLLIUM | | | | | | | | | | | |
| CADMIUM | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| CHROMIUM | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| COPPER | | | | | 0.080 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| LEAD | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| MERCURY | | | | | <QL | mg/l | | | | EPA 245.2 | 0.0002 mg/l |
| NICKEL | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| SELENIUM | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| SILVER | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| THALLIUM | | | | | <0.05 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| ZINC | | | | | 0.051 | mg/l | | | | EPA 200.7 | 0.05 mg/l |
| CYANIDE | | | | | <.005 | mg/l | | | | EPA 335.4 | 0.005 mg/l |
| TOTAL PHENOLIC COMPOUNDS | | | | | | | | | | | |
| HARDNESS (AS CaCO ₃) | | | | | 372 | mg/l | | | | SM 2340 C | 2 mg/l |
| Use this space (or a separate sheet) to provide information on other metals requested by the permit writer. | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|-----------------------------|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|-----------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| VOLATILE ORGANIC COMPOUNDS. | | | | | | | | | | | |
| ACROLEIN | | | | | <30.0 | ug/l | | | | EPA 624 | 30.0 ug/l |
| ACRYLONITRILE | | | | | <5.0 | ug/l | | | | EPA 624 | 5.0 ug/l |
| BENZENE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| BROMOFORM | | | | | <2.0 | ug/l | | | | EPA 624 | 2.0 ug/l |
| CARBON TETRACHLORIDE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| CLOROBENZENE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| CHLORODIBROMO-METHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| CHLOROETHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 2-CHLORO-ETHYLVINYL ETHER | | | | | <2.0 | ug/l | | | | EPA 624 | 2.0 ug/l |
| CHLOROFORM | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| DICHLOROBROMO-METHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 1,1-DICHLOROETHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 1,2-DICHLOROETHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| TRANS-1,2-DICHLORO-ETHYLENE | | | | | | | | | | | |
| 1,1-DICHLOROETHYLENE | | | | | | | | | | | |
| 1,2-DICHLOROPROPANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 1,3-DICHLORO-PROPYLENE | | | | | | | | | | | |
| ETHYLBENZENE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| METHYL BROMIDE | | | | | | | | | | | |
| METHYL CHLORIDE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| METHYLENE CHLORIDE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 1,1,2,2-TETRACHLORO-ETHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| TETRACHLORO-ETHYLENE | | | | | | | | | | | |
| TOLUENE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |

FACILITY NAME AND PERMIT NUMBER:

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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|-----------------------|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|----------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| 1,1,1-TRICHLOROETHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 1,1,2-TRICHLOROETHANE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| TRICHLORETHYLENE | | | | | | | | | | | |
| VINYL CHLORIDE | | | | | <2.0 | ug/l | | | | EPA 624 | 2.0 ug/l |

Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|

ACID-EXTRACTABLE COMPOUNDS

| | | | | | | | | | | | |
|-----------------------|--|--|--|--|-------|------|--|--|--|---------|-----------|
| P-CHLORO-M-CRESOL | | | | | | | | | | | |
| 2-CHLOROPHENOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| 2,4-DICHLOROPHENOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| 2,4-DIMETHYLPHENOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| 4,6-DINITRO-O-CRESOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| 2,4-DINITROPHENOL | | | | | <16.0 | ug/l | | | | EPA 625 | 16.0 ug/l |
| 2-NITROPHENOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| 4-NITROPHENOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| PENTACHLOROPHENOL | | | | | <16.0 | ug/l | | | | EPA 625 | 16.0 ug/l |
| PHENOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| 2,4,6-TRICHLOROPHENOL | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |

Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|

BASE-NEUTRAL COMPOUNDS.

| | | | | | | | | | | | |
|--------------------|--|--|--|--|-------|------|--|--|--|---------|-----------|
| ACENAPHTHENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| ACENAPHTHYLENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| ANTHRACENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| BENZIDINE | | | | | <50.0 | ug/l | | | | EPA 625 | 50.0 ug/l |
| BENZO(A)ANTHRACENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| BENZO(A)PYRENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|--------------------------------|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|-----------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| 3,4 BENZO-FLUORANTHENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| BENZO(GH)PERYLENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| BENZO(K)FLUORANTHENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| BIS (2-CHLOROETHOXY) METHANE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| BIS (2-CHLOROETHYL)-ETHER | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| BIS (2-CHLOROISO-PROPYL) ETHER | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| BIS (2-ETHYLHEXYL) PHTHALATE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| 4-BROMOPHENYL PHENYL ETHER | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| BUTYL BENZYL PHTHALATE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| 2-CHLORONAPHTHALENE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| 4-CHLORPHENYL PHENYL ETHER | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| CHRYSENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| DI-N-BUTYL PHTHALATE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| DI-N-OCTYL PHTHALATE | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| DIBENZO(A,H) ANTHRACENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| 1,2-DICHLOROBENZENE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 1,3-DICHLOROBENZENE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 1,4-DICHLOROBENZENE | | | | | <1.0 | ug/l | | | | EPA 624 | 1.0 ug/l |
| 3,3-DICHLOROBENZIDINE | | | | | <16.0 | ug/l | | | | EPA 625 | 16.0 ug/l |
| DIETHYL PHTHALATE | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| DIMETHYL PHTHALATE | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| 2,4-DINITROTOLUENE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| 2,6-DINITROTOLUENE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| 1,2-DIPHENYLHYDRAZINE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
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Remington WWTP - VA 0076805

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/ MDL |
|----------------------------|-------------------------|-------|------|-------|-------------------------|-------|------|-------|-------------------|-------------------|----------|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| FLUORANTHENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| FLUORENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| HEXACHLOROBENZENE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| HEXACHLOROBUTADIENE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| HEXACHLOROCYCLO-PENTADIENE | | | | | <8.0 | ug/l | | | | EPA 625 | 8.0 ug/l |
| HEXACHLOROETHANE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| INDENO(1,2,3-CD)PYRENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| ISOPHORONE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| NAPHTHALENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| NITROBENZENE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| N-NITROSODI-N-PROPYLAMINE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| N-NITROSODI- METHYLAMINE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| N-NITROSODI-PHENYLAMINE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |
| PHENANTHRENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| PYRENE | | | | | <1.5 | ug/l | | | | EPA 625 | 1.5 ug/l |
| 1,2,4-TRICHLOROBENZENE | | | | | <3.0 | ug/l | | | | EPA 625 | 3.0 ug/l |

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g. pesticides) requested by the permit writer.

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

____ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: _____ Test number: _____ Test number: _____

a. Test information.

| | | | |
|-----------------------------------|--|--|--|
| Test species & test method number | | | |
| Age at initiation of test | | | |
| Outfall number | | | |
| Dates sample collected | | | |
| Date test started | | | |
| Duration | | | |

SEE ITEM E-4
PER INSTRUCTIONS ABOVE

b. Give toxicity test methods followed.

| | | | |
|--|--|--|--|
| Manual title | | | |
| Edition number and year of publication | | | |
| Page number(s) | | | |

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

| | | | |
|-------------------|--|--|--|
| 24-Hour composite | | | |
| Grab | | | |

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

| | | | |
|----------------------|--|--|--|
| Before disinfection | | | |
| After disinfection | | | |
| After dechlorination | | | |

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

Form Approved 1/14/99
OMB Number 2040-0086

Test number: _____

Test number: _____

Test number: _____

e. Describe the point in the treatment process at which the sample was collected.

Sample was collected:

f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.

Chronic toxicity

Acute toxicity

g. Provide the type of test performed.

Static

Static-renewal

Flow-through

h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.

Laboratory water

Receiving water

i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.

Fresh water

Salt water

j. Give the percentage effluent used for all concentrations in the test series.

k. Parameters measured during the test. (State whether parameter meets test method specifications)

pH

Salinity

Temperature

Ammonia

Dissolved oxygen

l. Test Results.

Acute:

Percent survival in 100%
effluent

%

%

%

LC₅₀

95% C.I.

%

%

%

Control percent survival

%

%

%

Other (describe)

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
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Chronic:

| | | | |
|---|----------------------------------|---|---|
| NOEC | % | % | % |
| IC ₂₅ | % | % | % |
| Control percent survival | % | % | % |
| Other (describe) | | | |
| m. Quality Control/Quality Assurance. | | | |
| Is reference toxicant data available? | SEE ITEM E.4 PER INSTRUCTIONS | | |
| Was reference toxicant test within acceptable bounds? | | | |
| What date was reference toxicant test run (MM/DD/YYYY)? | | | |
| Other (describe) | | | |

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___ Yes ___ No

If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.Date submitted: SEE BELOW (MM/DD/YYYY)

Summary of results: (see instructions)

Toxicity Testing reports were submitted with the April DMRs in 2009, 2010, 2011 and 2012.**END OF PART E.****REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.**

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

Form Approved 1/14/99
OMB Number 2040-0086**SUPPLEMENTAL APPLICATION INFORMATION****PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES**

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

___ Yes ☒ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 0

b. Number of CIUs. 0

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: N/A

Mailing Address: N/A

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

N/A

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): N/A

Raw material(s): N/A

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

N/A gpd (___ continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

N/A gpd (___ continuous or ___ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ___ Yes ___ No

b. Categorical pretreatment standards ___ Yes ___ No

If subject to categorical pretreatment standards, which category and subcategory?

N/A

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

Form Approved 1/14/99
OMB Number 2040-0086**F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?☐ Yes ☐ No

If yes, describe each episode.

N/A

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:**F.9. RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ☐ Yes ☒ No (go to F.12.)**F.10. Waste Transport.** Method by which RCRA waste is received (check all that apply):☐ Truck☐ Rail☐ Dedicated Pipe**F.11. Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number

Amount

Units

N/A

N/A

N/A

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:**F.12. Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?☐ Yes (complete F.13 through F.15.)☒ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

N/A

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

N/A

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous☐ Intermittent

If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

Remington WWTP - VA 0076805

SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

N/A

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

- All CSO discharge points.
- Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
- Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1, or on a separate drawing, of the combined sewer collection system that includes the following information:

- Locations of major sewer trunk lines, both combined and separate sanitary.
- Locations of points where separate sanitary sewers feed into the combined sewer system.
- Locations of in-line and off-line storage structures.
- Locations of flow-regulating devices.
- Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

- Outfall number _____
- Location
 (City or town, if applicable) _____ (Zip Code) _____
 (County) _____ (State) _____
 (Latitude) _____ (Longitude) _____
- Distance from shore (if applicable) _____ ft.
- Depth below surface (if applicable) _____ ft.
- Which of the following were monitored during the last year for this CSO?
 ____ Rainfall ____ CSO pollutant concentrations ____ CSO frequency
 ____ CSO flow volume ____ Receiving water quality
- How many storm events were monitored during the last year? _____

G.4. CSO Events.

- Give the number of CSO events in the last year.
 _____ events (____ actual or ____ approx.)
- Give the average duration per CSO event.
 _____ hours (____ actual or ____ approx.)

FACILITY NAME AND PERMIT NUMBER:

Remington WWTP - VA 0076805

Form Approved 1/14/99
OMB Number 2040-0086

- c. Give the average volume per CSO event.

_____ million gallons (_____ actual or _____ approx.)

- d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

N/A

G.5. Description of Receiving Waters.

- a. Name of receiving water: _____

- b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

- c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

_____**END OF PART G.****REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.**

Additional information, if provided, will appear on the following pages.



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Page: 1

Work Order #: 24797
Contract #: 06/4REMGNTN
Customer #: 99
Customer PO #: REMINGTON

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

COMMENT: CHROM VI AND CHROM III WERE BOTH LESS THAN QL BASED
ON THE TOTAL CHROMIUM RESULT

TAG #: 59649
SAMPLE POINT: EFFLUENT

SAMPLE DATE:
04/03/2012

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|------------------------------|-----------|------|------------|-----------|------------|-------|------|
| Antimony, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Arsenic, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Cadmium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Chromium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Copper, Total Recoverable* | 0.0801 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Lead, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Mercury, Total Recoverable* | <0.000200 | mg/l | 0.000200 | EPA 245.2 | 04/10/12 | 15:54 | RW |
| Nickel, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Selenium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Silver, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Thallium, Total Recoverable* | <0.0500 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Zinc, Total Recoverable* | 0.0511 | mg/l | 0.0500 | EPA 200.7 | 04/16/12 | 13:22 | MDW |
| Pesticides* | -- | | | | 00/00/00 | | -- |
| 4,4,DDD | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| 4,4,DDE | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| 4,4,DDT | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Aldrin | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Heptachlor Epoxide | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Toxaphene | <1.0 | ug/l | 1.0 | EPA 608 | 04/09/12 | | SMD |
| Alpha BHC | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012
VA LAB ID# 460019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 2

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlyse Date | Time | Init |
|----------------------------|--------|------|------------|---------|-------------|------|------|
| Beta BHC | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Delta BHC | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Gamma BHC (Lindane) | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Methoxychlor | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Mirex | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Chlordane | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Dieldrin | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endosulfan I | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endosulfan II | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endosulfan Sulfate | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endrin | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Endrin Aldehyde | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Heptachlor | <0.025 | ug/l | 0.025 | EPA 608 | 04/09/12 | | SMD |
| Azinphos methyl (guthion) | <1.0 | ug/l | 1.0 | EPA 622 | 04/09/12 | | CAC |
| Chlorpyrifos | <1.0 | ug/l | 1.0 | EPA 622 | 04/09/12 | | CAC |
| Demeton | <2.0 | ug/l | 2.0 | EPA 622 | 04/09/12 | | CAC |
| Malathion | <2.0 | ug/l | 2.0 | EPA 622 | 04/09/12 | | CAC |
| Parathion | <1.0 | ug/l | 1.0 | EPA 622 | 04/09/12 | | CAC |
| Polychlorinated Biphenyls* | -- | | | | 00/00/00 | | -- |
| Aroclor 1016 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1221 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1232 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1242 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1248 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1254 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Aroclor 1260 | <0.50 | ug/l | 0.50 | EPA 608 | 04/09/12 | | SMD |
| Semi-Volatiles* | -- | | | | 00/00/00 | | -- |
| 2,4,6-Trichlorophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012

VA LAB ID# 460019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Page: 3

Work Order #: 24797
Contract #: 06/4REMGNTN
Customer #: 99
Customer PO #: REMINGTON

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|-----------------------------|--------|------|------------|---------|------------|------|------|
| 2,4-Dichlorophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 2,4-Dimethylphenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 2,4-Dinitrophenol | <16.0 | ug/l | 16.0 | EPA 625 | 04/09/12 | | GEC |
| 2-Chlorophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 2-Nitrophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 4,6-Dinitro-o-cresol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Chloro-3-methylphenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Nitrophenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Pentachlorophenol | <16.0 | ug/l | 16.0 | EPA 625 | 04/09/12 | | GEC |
| Phenol | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| 1,2,4-Trichlorobenzene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 1,2-Diphenylhydrazine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 2,4-Dinitrotoluene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 2,6-Dinitrotoluene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 2-Chloronaphthalene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 3,3-Dichlorobenzidine | <16.0 | ug/l | 16.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Bromophenyl phenyl ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| 4-Chlorophenyl phenyl ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Acenaphthene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Acenaphthylene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Anthracene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzidine | <50.0 | ug/l | 50.0 | EPA 625 | 04/09/12 | | GEC |
| Benzo(a)anthracene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(a)pyrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(ghi)perylene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(k)fluoranthene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Bis(2-Chloroethoxy)methane | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Bis(2-Chloroethyl)ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012

VA LAB ID# 460019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 4

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|-----------------------------|--------|------|------------|---------|------------|-------|------|
| Bis(2-Chloroisopropyl)ether | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Bis(2-Ethylhexyl)Phthalate | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Butylbenzyl Phthalate | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Chrysene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Di-n-butyl Phthalate | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Di-n-octyl Phthalate | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Dibenzo(a,h)anthracene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Diethyl Phthalate | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Dimethyl Phthalate | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Fluoranthrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Fluorene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Hexachlorobenzene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Hexachlorobutadiene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Hexachlorocyclopentadiene | <8.0 | ug/l | 8.0 | EPA 625 | 04/09/12 | | GEC |
| Hexachloroethane | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Indeno(1,2,3-cd)pyrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Isophorone | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| N-nitrosodi-n-propylamine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| N-nitrosodimethylamine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| N-nitrosodiphenylamine | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Naphthalene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Nitrobenzene | <3.0 | ug/l | 3.0 | EPA 625 | 04/09/12 | | GEC |
| Phenanthrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Pyrene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Benzo(b)fluoranthene | <1.5 | ug/l | 1.5 | EPA 625 | 04/09/12 | | GEC |
| Volatiles* | -- | | | | 00/00/00 | | -- |
| 1,1,1-Trichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,1,2,2-Tetrachloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012

VA LAB ID# 450019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 5

Work Order #: 24797
Contract #: 06/4REMGNTN
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|---------------------------|--------|------|------------|---------|------------|-------|------|
| 1,1,2-Trichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,2-Dichlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,1-Dichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,1-Dichloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,2-Dichloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,2-Dichloropropane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 2-Chloroethylvinylether | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Acrolein | <30.0 | ug/l | 30.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Acrylonitrile | <5.0 | ug/l | 5.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Benzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Bromoform | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Bromomethane | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Carbon Tetrachloride | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chlorodibromomethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chloroethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chloroform | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Chloromethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| cis-1,3-Dichloropropene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Dichlorobromomethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Ethylbenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Methylene Chloride | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Tetrachloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Toluene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| trans-1,2-Dichloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| trans-1,3-Dichloropropene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Trichloroethene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Trichlorofluoromethane | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012

VA LAB ID# 460019

* Subcontracted test



ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Page: 6

Work Order #: 24797
Contract #: 06/4REMINGTON
Customer #: 99
Customer PO #: REMINGTON

FAUQUIER COUNTY WSA
ATTN: ACCOUNTS PAYABLE
7172 KENNEDY ROAD
WARRENTON, VA 20187

Job Location: REMINGTON WWTP ATT A
Collected by: CLIENT
Date Received: 04/03/2012

ANALYSIS REPORT

| Description | Result | Unit | Rpt. Limit | Method | Anlys Date | Time | Init |
|---------------------------|--------|-------|------------|--------------|------------|-------|------|
| Vinyl Chloride | <2.0 | ug/l | 2.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,3-Dichlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| 1,4-Dichlorobenzene | <1.0 | ug/l | 1.0 | EPA 624 | 04/09/12 | 14:44 | MES |
| Total Xylene | <10.0 | ug/l | 10.0 | SW-846 8021B | 04/11/12 | 08:02 | SJ |
| Gross Alpha* | 3.54 | pCi/L | 10.84 | EPA 900.0 | 04/09/12 | 09:00 | BPS |
| Gross Beta* | 11.50 | pCi/L | 8.01 | EPA 900.0 | 04/09/12 | 09:00 | BPS |
| Strontium 90* | 1.29 | pCi/L | 2.00 | EPA 905.0 | 04/23/12 | 08:38 | VXC |
| Tritium* | 157.8 | pCi/L | 1000.00 | EPA 906.0 | 04/16/12 | 14:30 | BPS |
| Ammonia, as N | <0.10 | mg/l | 0.10 | SM 4500NH3D | 04/06/12 | 15:15 | BW |
| Chloride | 215 | mg/l | 1.00 | SM 4500Cl-C | 04/05/12 | 12:00 | JW |
| Total Cyanide* | <0.005 | mg/l | 0.005 | EPA 335.4 | 04/12/12 | 12:59 | LEF |
| Total Hardness as CaCO3 | 372 | mg/l | 2 | SM 2340 C | 04/03/12 | 12:15 | JW |
| Hydrogen Sulfide* | <2.00 | mg/l | 2.00 | SM 4500S2F | 04/10/12 | 16:00 | JWB |
| Tributyltin* | <0.016 | ug/l | 0.016 | NBSIR85-3295 | 04/05/12 | | SM |
| Escherichia coli (100 ml) | <1 | MPN | 1 | COLILERT | 04/03/12 | 13:18 | JW |

Reviewed by:

Angie Woodward
A. Woodward/Technical Director

Report Date: May 18, 2012
VA LAB ID# 460019

* Subcontracted test



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ <www.ess-services.com>

Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 05/21/2012
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Remington Att A

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd.

All methods are Standard Methods, 19th edition unless otherwise noted.

Environmental Systems Service assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of Environmental Systems Service, Ltd.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by: Angie Woodward
A. Woodward/Technical Director





Analytical Report

Fauquier County WSA
ATTN: Accounts Payable
7172 Kennedy Road
Warrenton, VA 20187-1646

Report Date: 05/21/2012
Job #:
Customer #: 0000099
Customer PO #: Remington
Collected By: Customer
Sample Location: Remington Att A

| | | | |
|-------------------|--------------------|----------------|------------|
| Sample ID#: | 0060497 | Sample Source: | Effluent |
| Sample Date/Time: | 05/01/2012 / 07:00 | Date Received: | 05/01/2012 |

| Parameter | Results | Unit | Report Limit | Method | Analysis Date | Time | INIT |
|-----------|---------|------|--------------|-------------|---------------|------|------|
| Kepone | <16.1 | ug/l | 16.1 | SW846 8270D | 05/07/2012 | | 570 |

570 Samples subcontracted to VELAP ID# VELAP 460157



Company Remington
Contact _____
Address _____
Address _____
Phone _____

ESS
Environmental Systems Service, Ltd.
www.ess-services.com

500 Stone St.
Post Office Box 736
Bedford, VA 24523
540-586-5413
Fax 540-586-5530

Site P.O.#
 Timothy LEWIS Timothy Lewis
 (Print Name) (Signature)

P.O.#

(Signature)

[illegible]/ **COMMENTS**

Preservative

pH Check:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date _____

Time

Received by:

Retinquished by:

| | |
|--|-------------|
| | Date |
|--|-------------|

Time

Received by:

Relinquished by:

Date

Time

Received for Laboratory by:

Method of Delivery:

☐ UPS

☐ Fed Ex

☒ Hand Delivery

☐ UPS Overnight☐ Post Office

On Ice?

7

N

Received @ 3:1 C

☐ Under 2 hours

| | |
|------|--|
| TAT: | |
|------|--|

Normal _____ Rush _____

Need Results by _____
Extra charges will apply for Rush TAT.

W.O.# _____

W.O.# _____

Amt Paid \$ _____

Check #



Log-In / Sample Receipt Form

Customer Name:

Remington

Date Received:

5-1-12

Sample Custodian:

agm

| Tag # | Bottle # | Parameter(s) | Container size | Temp. °C | On Ice? | pH (if preserved) | Sample condition | Sample Comments |
|----------|-------------|--------------|-------------------|-------------|------------|----------------------|---------------------|-----------------|
| 600497 | 1A6 | Kepona | 1L | 3.1 | yes | | ok | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

General Comments:

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into four sections. Section A pertains to all applicants. The applicability of Sections B, C and D depends on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Does this facility generate sewage sludge? ☒ Yes ☐ No

Does this facility derive a material from sewage sludge? ☐ Yes ☒ No

If you answered "Yes" to either, complete Section B (Generation Of Sewage Sludge or Preparation Of A Material Derived From Sewage Sludge).

3. Does this facility apply sewage sludge to the land? ☐ Yes ☒ No

Is sewage sludge from this facility applied to the land? ☒ Yes ☐ No

If you answer "No" to all above, skip Section C.

If you answered "Yes" to either, answer the following three questions:

a. Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
☒ Yes ☐ No

b. Is sewage sludge from this facility placed in a bag or other container for sale or give-away for application to the land?
☐ Yes ☒ No

c. Is sewage sludge from this facility sent to another facility for treatment or blending? ☐ Yes ☒ No

If you answered "No" to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered "Yes" to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? ☐ Yes ☒ No

If "Yes", complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION*All applicants must complete this section.***1. Facility Information.**

- a. Facility name: Remington Wastewater Treatment Plant
- b. Contact person: Raymond Searls
Title: Chief Operator
Phone: (540) 439-2225
- c. Mailing address:
Street or P.O. Box: 12523 Lucky Hill Road
City or Town: Remington State: VA Zip: 22734
- d. Facility location:
Street or Route #: Rt. 655
County: Fauquier
City or Town: Remington State: VA Zip: 22734
- e. Is this facility a Class I sludge management facility? ☒ Yes ☐ No
- f. Facility design flow rate: 2.0 mgd
- g. Total population served: 2,223 connections
- h. Indicate the type of facility:
☒ Publicly owned treatment works (POTW)
☐ Privately owned treatment works
☐ Federally owned treatment works
☐ Blending or treatment operation
☐ Surface disposal site
☐ Other (describe): _____

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: Fauquier County Water and Sanitation Authority
- b. Mailing address:
Street or P.O. Box: 7172 Kennedy Road
City or Town: Warrenton State: VA Zip: 20187
- c. Contact person: Cheryl St. Amant
Title: Associate General Manager Operations
Phone: (540) 349-2092
- d. Is the applicant the owner or operator (or both) of this facility?
☒ owner ☒ operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant?
☐ facility ☒ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable): VA 0076805
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
Permit Number: N/A Type of Permit: N/A

4. **Indian Country.** Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? Yes ☒ No If "Yes", describe:

5. **Topographic Map.** Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:

- a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed. SEE ATTACHMENT A
- b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. **Line Drawing.** Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. SEE ATTACHMENT B

7. **Contractor Information.** Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? X Yes No

If "Yes", provide the following for each contractor (attach additional pages if necessary).

Name: Recyc Systems, Inc.

Mailing address:

Street or P.O. Box: P.O. Box 562

City or Town: Remington State: VA Zip: 22734

Phone: (540) 547-3300

Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

See attached annual report from Recyc - ATTACHMENT C

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. **Pollutant Concentrations.** Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. HAUL & LAND APPLICATION

| POLLUTANT | CONCENTRATION (mg/kg dry weight) | SAMPLE DATE | ANALYTICAL METHOD | DETECTION LEVEL FOR ANALYSIS |
|------------|-------------------------------------|----------------|----------------------|---------------------------------|
| Arsenic | 7.23 | 2008 – 2012 | SW-846 6010B | 10.0 mg/kg |
| Cadmium | 1.28 | 2008 – 2012 | SW-846 6010B | 2.0 mg/kg |
| Chromium | N/A | N/A | N/A | N/A |
| Copper | 536.3 | 2008 – 2012 | SW-846 6010B | 2.0 mg/kg |
| Lead | 44.8 | 2008 – 2012 | SW-846 6010B | 4.0 mg/kg |
| Mercury | 0.797 | 2008 – 2012 | SW-846 7471A | 0.0250 mg/kg |
| Molybdenum | 9.15 | 2008 – 2012 | SW-846 6010B | 4.0 mg/kg |
| Nickel | 17.6 | 2008 – 2012 | SW-846 6010B | 4.0 mg/kg |
| Selenium | 4.83 | 2008 – 2012 | SW-846 6010B | 10.0 mg/kg |
| Zinc | 1,039.8 | 2008 – 2012 | SW-846 6010B | 4.0 mg/kg |

9. **Certification.** Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

 X Section A (General Information)

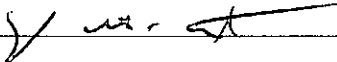
 X Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

 Section C (Land Application of Bulk Sewage Sludge)

 Section D (Surface Disposal)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and official title Cheryl St. Amant, Associate General Manager Operations

Signature  Date Signed 8/30/12

Telephone number (540) 349-2092

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

**SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE***Complete this section if your facility generates sewage sludge or derives a material from sewage sludge***1. Amount Generated On Site.**Total dry metric tons per 365-day period generated at your facility: 286.37 dry metric tons**2. Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.a. Facility name: Vint Hill WWTPb. Contact Person: Troy WillinghamTitle: Chief OperatorPhone: (540) 349-2500

c. Mailing address:

Street or P.O. Box: 7000 Kennedy RoadCity or Town: WarrentonState: VAZip: 20187d. Facility location: 7000 Kennedy Road(not P.O. Box) Warrenton, VA 20187e. Total dry metric tons per 365-day period received from this facility: ~ 152 ~~dry~~ metric tons

f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

Aerobic Digestion and belt filter press dewatering**3. Treatment Provided at Your Facility.**

a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?

 Class A X Class B Neither or unknownb. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: Aerobic Digestion

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

 Option 1 (Minimum 38 percent reduction in volatile solids) X Option 2 (Anaerobic process, with bench-scale demonstration) Option 3 (Aerobic process, with bench-scale demonstration) Option 4 (Specific oxygen uptake rate for aerobically digested sludge) Option 5 (Aerobic processes plus raised temperature) Option 6 (Raise pH to 12 and retain at 11.5) Option 7 (75 percent solids with no unstabilized solids) Option 8 (90 percent solids with unstabilized solids) None or unknownd. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: Aerobic Digestion

e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above:

In addition to aerobic digestion the sludge is dewatered by a centrifuge.

VPDES PERMIT NUMBER: VA0076805

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

- 5. Sale or Give-Away in a Bag or Other Container for Application to the Land.**

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

- ☐ Option 3 (Aerobic process, with bench-scale demonstration)
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
☐ Option 5 (Aerobic processes plus raised temperature)
☐ Option 6 (Raise pH to 12 and retain at 11.5)
☐ Option 7 (75 percent solids with no unstabilized solids)
☐ Option 8 (90 percent solids with unstabilized solids)
☐ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: N/A

- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
☐ Yes ☐ No

If "Yes", describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:
N/A

- i. If you answered "Yes" to f, g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.
- j. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ☐ Yes ☐ No
- If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.
- k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ☐ Yes ☐ No. If "No", provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. N/A

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6. Complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:

286.37 dry metric tons

SEE ATTACHMENT C

- b. Do you identify all land application sites in Section C of this application? ☒ Yes ☐ No

If "No", submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

- c. Are any land application sites located in States other than Virginia? ☐ Yes ☒ No

If "Yes", describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: N/A dry metric tons

- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
 Yes No

If "No", answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

- c. Site name or number: _____

- d. Contact person: _____

Title: _____

Phone: (_____) _____

Contact is: Site Owner Site operator

- e. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number: _____ Type of Permit: _____

9. Incineration.

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: N/A dry metric tons

- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
 Yes No

If "No", answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

- c. Incinerator name or number: _____

- d. Contact person: _____

Title: _____

Phone: (_____) _____

Contact is: Incinerator Owner Incinerator Operator

- e. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing

of sewage sludge at this incinerator:

Permit Number: _____

Type of Permit: _____

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

- a. Landfill name: N/A
- b. Contact person: _____
Title: _____
Phone: (_____) _____
Contact is: _____ Landfill Owner _____ Landfill Operator
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Landfill location:
Street or Route #: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
_____ dry metric tons
- f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: _____ Type of Permit: _____

- g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
_____ Yes _____ No
- h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? _____ Yes _____ No
- i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? _____ Yes _____ No

Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported. _____

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

- The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or
- The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or
- You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.

a. Site name or number: See attachment for Recyc report

ATTACHMENT C

b. Site location (Complete i and ii)

i. Street or Route#: _____

County: _____

City or Town: _____

State: _____

Zip: _____

ii. Latitude: _____

Longitude: _____

Method of latitude/longitude determination

____ USGS map

____ Filed survey

____ Other

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.

a. Are you the owner of this land application site? ____ Yes X No

b. If "No", provide the following information about the owner:

Name: _____

Recyc

Street or P.O. Box: _____

City or Town: _____

State: _____

Zip: _____

Phone: (_____) _____

3. Applier Information:

a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? ____ Yes ____ No

b. If "No", provide the following information for the person who applies the sewage sludge:

Name: _____

Street or P.O. Box: _____

City or Town: _____

State: _____

Zip: _____

Phone: (_____) _____

c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:

Permit Number: _____

Type of Permit: _____

4. Site Type. Identify the type of land application site from among the following:

____ Agricultural land

____ Reclamation site

____ Forest

____ Public contact site

____ Other (describe _____)

5. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?

_____ Yes _____ No If "Yes", answer a and b.

- a. Indicate which vector attraction reduction option is met:

_____ Option 9 (Injection below land surface)

_____ Option 10 (Incorporation into soil within 6 hours)

- b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

6. Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

- a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? _____ Yes _____ No

If "No", sewage sludge subject to the CPLRs may not be applied to this site.

If "Yes", provide the following information:

Permitting authority: _____

Contact person: _____

Phone: (_____) _____

- b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? _____ Yes _____ No If "No", skip the rest of Question 6. If "Yes", answer questions c - e.

- c. Site size, in hectares: _____ (one hectare = 2.471 acres)

- d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name: _____

Facility contact: _____

Title: _____

Phone: (_____) _____

Mailing address.

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

| | Cumulative loading | Allotment remaining |
|----------|--------------------|---------------------|
| Arsenic | _____ | _____ |
| Cadmium | _____ | _____ |
| Copper | _____ | _____ |
| Lead | _____ | _____ |
| Mercury | _____ | _____ |
| Nickel | _____ | _____ |
| Selenium | _____ | _____ |
| Zinc | _____ | _____ |

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

| | |
|---|-------|
| PCBs (mg/kg) | _____ |
| pH (S. U.) | _____ |
| Percent Solids (%) | _____ |
| Ammonium Nitrogen (mg/kg) | _____ |
| Nitrate Nitrogen (mg/kg) | _____ |
| Total Kjeldahl Nitrogen (mg/kg) | _____ |
| Total Phosphorus (mg/kg) | _____ |
| Total Potassium (mg/kg) | _____ |
| Alkalinity as CaCO ₃ * (mg/kg) | _____ |

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

8. Storage Requirements.

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

- a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
 - 1) Water wells, abandoned or operating
 - 2) Surface waters
 - 3) Springs
 - 4) Public water supply(s)
 - 5) Sinkholes
 - 6) Underground and/or surface mines
 - 7) Mine pool (or other) surface water discharge points
 - 8) Mining spoil piles and mine dumps
 - 9) Quarry(s)
 - 10) Sand and gravel pits
 - 11) Gas and oil wells
 - 12) Diversion ditch(s)
 - 13) Agricultural drainage ditch(s)
 - 14) Occupied dwellings, including industrial and commercial establishments
 - 15) Landfills or dumps
 - 16) Other unlined impoundments
 - 17) Septic tanks and drainfields
 - 18) Injection wells
 - 19) Rock outcrops
- b. A topographic map of sufficient detail to clearly show the following information:
 - 1) Maximum and minimum percent slopes
 - 2) Depressions on the site that may collect water
 - 3) Drainageways that may attribute to rainfall run-on to or runoff from this site
 - 4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding
- c. Data and specifications for the storage facility lining material.
- d. Plan and cross-sectional views of the storage facility.
- e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings

(CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.

- 10. Landowner Agreement Forms.** Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.

11. Ground Water Monitoring.

Are any ground water monitoring data available for this land application site? ☐ Yes ☐ No

If "Yes", submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

- a. Provide a general location map for each county which clearly indicates the location of all the land application sites.
- b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.
- c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U.S. Fish and Wildlife Service
Virginia Field Office
P.O. Box 480
White Marsh, VA 23183
TEL: (804) 693-6694

Provide a copy of the notification letter with this application form.

- d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)

Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

- 1) Soil symbol
- 2) Soil series, textural phase and slope range
- 3) Depth to seasonal high water table
- 4) Depth to bedrock
- 5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

- e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

- 1) Soil symbol
- 2) Soil series, textural phase and slope range
- 3) Depth to seasonal high water table
- 4) Depth to bedrock
- 5) Estimated soil productivity group (for the proposed crop rotation)

- f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)

Soil pH (std. units)

| | |
|--|-------|
| Cation Exchange Capacity (meq/100g) | _____ |
| Total Nitrogen (ppm) | _____ |
| Organic Nitrogen (ppm) | _____ |
| Ammonia Nitrogen (ppm) | _____ |
| Nitrate Nitrogen (ppm) | _____ |
| Available Phosphorus (ppm) | _____ |
| Exchangeable Potassium (mg/100g) | _____ |
| Exchangeable Sodium (mg/100g) | _____ |
| Exchangeable Calcium (mg/100g) | _____ |
| Exchangeable Magnesium (mg/100g) | _____ |
| Arsenic (ppm) | _____ |
| Cadmium (ppm) | _____ |
| Copper (ppm) | _____ |
| Lead (ppm) | _____ |
| Mercury (ppm) | _____ |
| Molybdenum (ppm) | _____ |
| Nickel (ppm) | _____ |
| Selenium (ppm) | _____ |
| Zinc (ppm) | _____ |
| Manganese (ppm) | _____ |
| Particle Size Analysis or USDA Textural Estimate (%) | _____ |

- g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.
- h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

SEWAGE SLUDGE APPLICATION AGREEMENT

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;
2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;
3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;
4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;
5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;
6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;
8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:

Permittee:

Signature_____
Signature_____
Mailing Address_____
Mailing Address

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.

- a. Unit name or number: N/A
- b. Unit location
- i. Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- ii. Latitude: _____ Longitude: _____
Method of latitude/longitude determination
____ USGS map _____ Filed survey _____ Other _____
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
- d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:
_____ dry metric tons.
- e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:
_____ dry metric tons.
- f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec?
____ Yes ____ No If "Yes", describe the liner or attach a description.

- g. Does the active sewage sludge unit have a leachate collection system? ____ Yes ____ No
If "Yes", describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

- h. If you answered "No" to either f or g, answer the following:
Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ____ Yes ____ No If "Yes", provide the actual distance in meters: _____
- i. Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons
Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)
Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? ____ Yes ____ No

If "Yes", provide the following information for each such facility, attach additional sheets as necessary.

- a. Facility name: _____
- b. Facility contact: _____
Title: _____
Phone: (_____) _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____

- d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:

Permit Number:

Type of Permit:

- e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?

____ Class A ____ Class B ____ Neither or unknown

- f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge: _____

- g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?

____ Option 1 (Minimum 38 percent reduction in volatile solids)

____ Option 2 (Anaerobic process, with bench-scale demonstration)

____ Option 3 (Aerobic process, with bench-scale demonstration)

____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

____ Option 5 (Aerobic processes plus raised temperature)

____ Option 6 (Raise pH to 12 and retain at 11.5)

____ Option 7 (75 percent solids with no unstabilized solids)

____ Option 8 (90 percent solids with unstabilized solids)

____ None or unknown

- h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge: _____

- i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above: _____

3. Vector Attraction Reduction.

- a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

____ Option 9 (Injection below land surface)

____ Option 10 (Incorporation into soil within 6 hours)

____ Option 11 (Covering active sewage sludge unit daily)

- b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge: _____

4. Ground Water Monitoring.

- a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ____ Yes ____ No

If "Yes", provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these

data.

- b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
_____ Yes _____ No If "Yes", submit a copy of the ground water monitoring program with this application.
- c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? _____ Yes _____ No

If "Yes", submit a copy of the certification with this application.

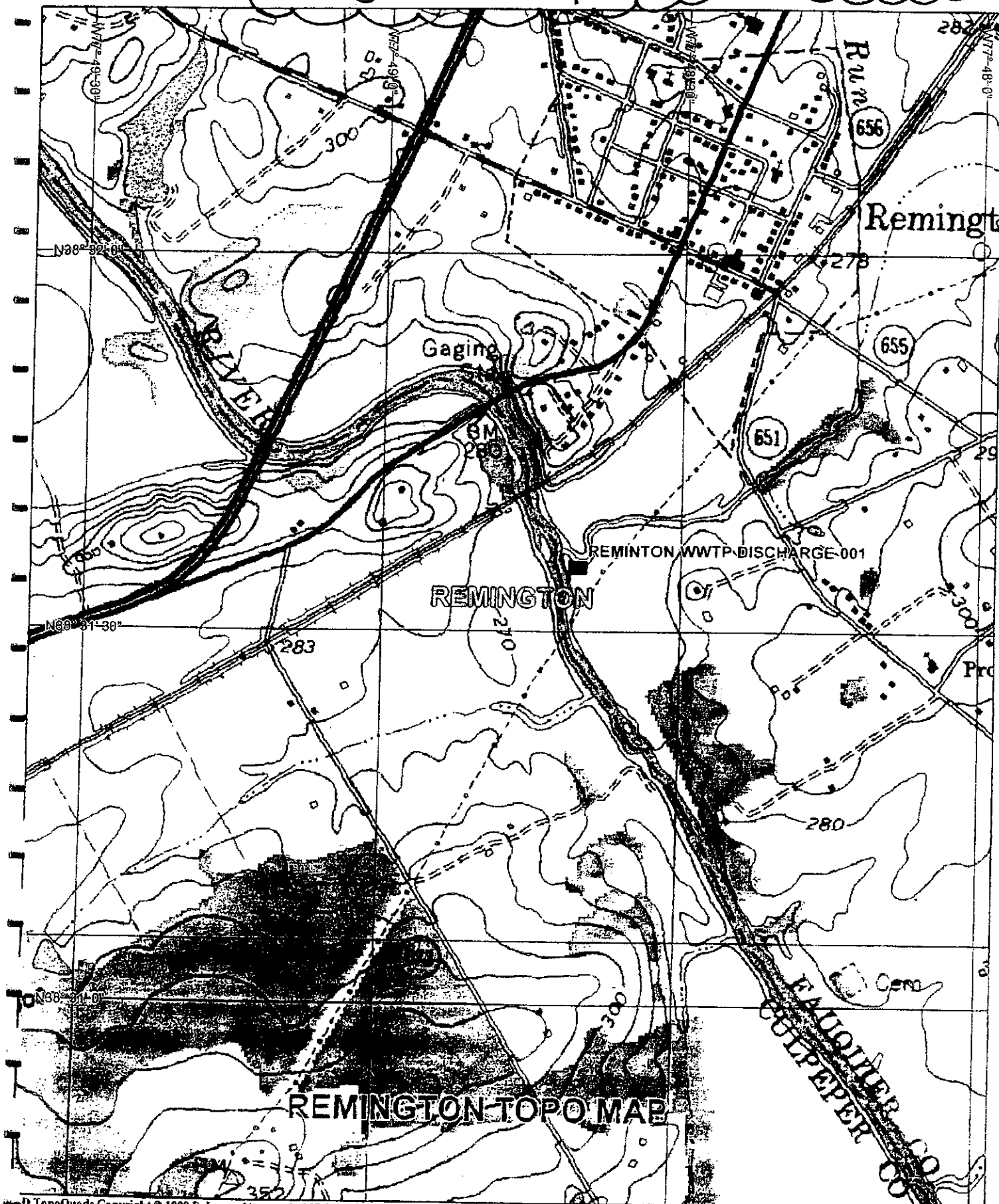
5. Site-Specific Limits.

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?

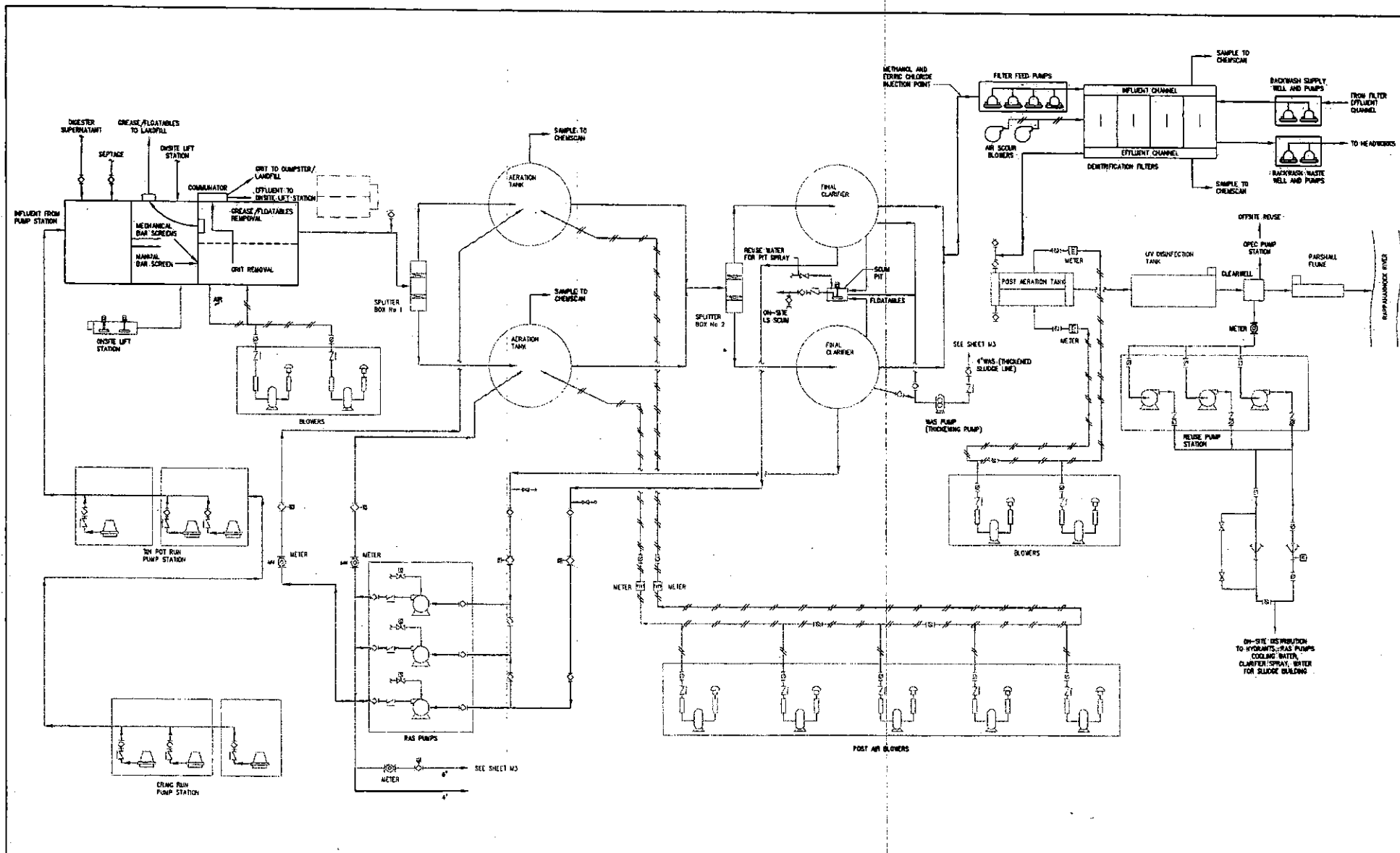
_____ Yes _____ No If "Yes", submit information to support the request for site-specific pollutant limits with this application.

Attachment A

Remington WWTP Topo Map - Attachment A

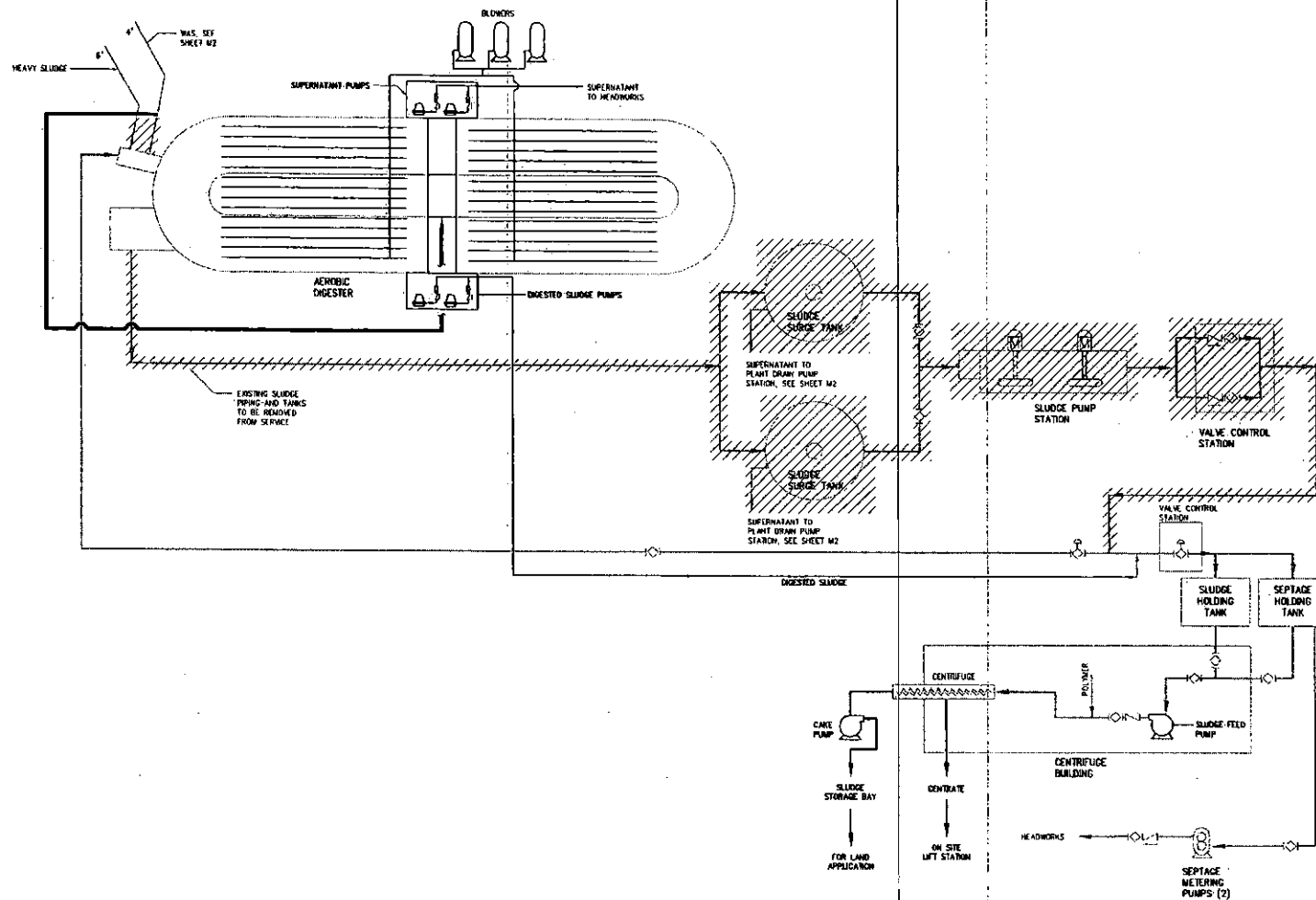


Attachment B



| | | | | | | | | |
|---|--|--|--|---|--|---|---|---|
| DESIGNED: SEL DRAWN: TCH CHECKED: CTJ PROJECTOR: CTJ DATE: 02/24/09 BY: CTJ APPROVED: | | THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY RONALD L. TAYLOR, LICENSE NUMBER 24649. THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT | THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY CHARLES T. JOHNSON, LICENSE NUMBER 43610. THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT | HAZEN AND SAWYER Environmental Engineers & Scientists 4011 WestChase Boulevard, Suite 500 Raleigh, North Carolina 27607 | FAUQUIER COUNTY WATER AND SANITATION AUTHORITY VIRGINIA REMINGTON WASTEWATER TREATMENT PLANT ENHANCED NUTRIENT REMOVAL UPGRADE | MECHANICAL MAIN PROCESS FLOW DIAGRAM | THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING | DATE: DECEMBER 2008 H&S JOB NUMBER: 30554-007 CONTRACT NUMBER: DRAWING NUMBER: M2 |
|---|--|--|--|---|--|---|---|---|

ATACHMENT B
 CONFORMED DRAWING



| | | | | | | | | | | | | | | | | | | |
|-----|--------------------|--|--|----------------|---|----------|---|--|---|--|--|---|--|--|----------------------|---------------------|--------------------|----|
| | | | | DESIGNER: SEL | THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY RONALD L. TAYLOR, LICENSE NUMBER 24649. | | THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY CHARLES T. JOHNSON, LICENSE NUMBER 43610. | | Hazen and Sawyer Environmental Engineers & Scientists 4011 WestChase Boulevard, Suite 500 Raleigh, North Carolina 27607 | FAUQUIER COUNTY WATER AND SANITATION AUTHORITY VIRGINIA. | | MECHANICAL SLUDGE PROCESS FLOW DIAGRAM | THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING. | DATE: DECEMBER 2008 | SHEET NO.: 30554-007 | CONTRACT NUMBER: | DRAWING NUMBER: | |
| | | | | DRAWN: TCH | | | | | | | | | | | | | | |
| | | | | CHECKED: | | | | | | | | | | | | | | |
| | | | | PROJECTOR: CTJ | THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT. | | THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT. | | | 4011 WestChase Boulevard, Suite 500 Raleigh, North Carolina 27607 | | | | REMTINGTON WASTEWATER TREATMENT PLANT ENHANCED NUTRIENT REMOVAL UPGRADE | | | | |
| 2 | PER ADDENDUM 1 | | | 02/24/09 | CTJ | | | | | | | | | | | | | |
| 1 | ISSUED FOR BIDDING | | | 12/27/08 | TEH | | | | | | | | | | | | | |
| NO. | ISSUED FOR | | | DATE | BY | APPROVED | | | | | | | | | | | | M3 |

CONFORMED DRAWING 6/17/09

ATTACHMENT B

SECTION 3.0

DESCRIPTION OF WWTP AND PUMP STATIONS

A. AVERAGE AND PEAK FLOW VALUES

The Remington WWTP is owned and operated by the Fauquier County Water and Sanitation Authority and discharges into the Rappahannock River Basin under VPDES Permit No. VA0076805. The current permitted capacity of the Remington WWTP is 2.0 mgd. The Virginia Department of Environmental Quality (VDEQ) has established nutrient waste load allocations in accordance with the Chesapeake Bay Initiative Program to reduce significant discharges to the Chesapeake Bay watershed. The nutrient waste load allocations for this facility allow a maximum annual nutrient discharge of 24,364 lbs/yr and 1,827 lbs/yr for total nitrogen (TN) and total phosphorus (TP), respectively. These waste load allocations equate to effluent concentrations 4.0 mg/L of TN and 0.3 mg/L of TP at a design flow of 2.0 mgd.

The P-1 pumps, located in Activated Sludge Pump Station PS-1, are used for RAS (return activated sludge) and WAS (waste activated sludge). Each of these pumps are rated 450-675 GPM. With two pumps in operation at full speed (and one in standby) the WWTP has a recycle rate of 1350 gpm (1.94 mgd) or about 100% of design flow. At a peak flow of 5.0 mgd and full recycle rate of 2.0 mgd, the peak flow to the T-3 Aeration Tanks and T-4 Settling Tanks would be 7.0 mgd.

Plant effluent is discharged to the Rappahannock River by a 20" outfall. Peak flow capacity is 5.0 mgd, when the Rappahannock River is at its 100 Year Flood Elevation. Hydraulic capacity is higher at lower river elevations.

The wastewater collection system for the Remington/Bealeton Service Area has two main pump stations:

- Tinpot Run Pump Station, and
- Craig Run Pump Station

In addition, the service area has two minor pump stations, which are not discussed in detail, in this document:

- Bealeton Shopping Station Pump Station, and
- Marsh Run Pump station

The Marsh Run Pump Station and Bealeton Shopping Center Pump Station are tributary to the Craig Run Pump Station. The Craig Run Pump Station is tributary to the Tinpot Run Pump Station. The Tinpot Run Pump Station discharges to the Remington WWTP.

FLOW DATA SUMMARY:

| | | |
|-----------------------------|--|---------------------------|
| Wastewater Treatment Plant: | 2.0 mgd design flow rate; and 5.0 mgd peak flow rate | |
| Tinpot Run Pump Station: | 5.0 mgd peak flow rate | Variable Frequency Drives |
| Craig Run Pump Station: | 3.25 mgd peak flow rate | Variable Frequency Drives |

The majority of the original Remington Wastewater Treatment Plant was abandoned in 1995 and replaced with new treatment units that included: preliminary treatment facilities, two 122-foot diameter Schreiber activated sludge tanks, two 65-foot diameter secondary clarifiers, a new post aeration facility, and an ultraviolet (UV) light disinfection system. In 2006 a new ferric chloride storage and feed facility was constructed for chemical phosphorus removal. In 2010 the plant design capacity was expanded to 2.0 mgd with the addition of denitrification filters and modifications to the aeration tanks and aerobic digesters. The WWTP provides full nitrification and provides biological nutrient removal (phosphorus and nitrogen).

Discussion of the WWTP process is divided into six areas:

- Main Flow
- Preliminary Treatment
- Activated Sludge Process
- Denitrification Filter
- Waste Sludge Processing
- Utility Water

A discussion of the pump stations follow:

- Tinpot Run Pump Station
- Craig Run Pump Station

B.1 MAIN FLOW

Flow enters the WWTP via a 16" force main from the Tinpot Run Pump Station. Preliminary treatment starts at the T-1 Automated Bar Screen and continues at the T-2 Grit/Grease Removal System (Refer to Section B.2, below).

The wastewater then flows to the SB-1 Splitting Box, which is used to control flow to the T-3A and T-3B Aeration Reactors. The K-1(A through E) Blowers provide compressed air to the air diffusers mounted on a rotating bridge in each T-3 Aeration Tank. The compressed air maintains dissolved oxygen levels and provides mixing. K-1 blowers A through E were overhauled and upgraded during the Enhanced Nutrient Removal Upgrade to provide 1,100 scfm @ 7.6 psig. DO (Dissolved Oxygen) probes continuously monitor DO levels and control the amount of air delivered to the T-3 Aeration Tanks.

Mixed liquor from the Aeration Reactors then flows to the T-4A and T-4B Final Clarifiers, where suspended solids settle to the bottom by gravity. The settled solids, referred to as activated sludge, are pumped back to the T-3 and T-4 Aeration Tanks (return activated sludge) to maintain an adequate level of biomass, or are pumped to the aerobic digester (waste activated sludge) for volatiles stabilization. (Refer to B.3 and B.4, below). Final Clarifier effluent flows to the Denitrification Filters where it is feed through the filters by five (5) filter feed

pumps. Each Filter Feed Pump is designed to provide 1,045 gpm at 14.1' tdh. Methanol is added to the final clarifier effluent to provide a carbon source for denitrification. The filter effluent flows to the post aeration tanks for re-aeration prior to UV disinfection. The filters are cleaned by a backwash cycle and the backwash waste is diverted to the end of the influent bar screens.

The dissolved oxygen level of the clarified effluent is then elevated in the T-5A and T-5B Post Aeration Tanks. The K-3A and K-3B Blowers, located on the B-3 blower pad and each rated 140 scfm @ 14.7 psig, deliver compressed air to submerged diffusers in the T-5A and T-5B Post Aeration Tanks. Post Aeration Tank T-5A or T-5B can be taken out of service by use of Sluice Gate S-5A or Sluice Gate S-5B, respectively.

The final treatment step is the T-6 Ultraviolet Irradiation Tank to disinfect the effluent. Three banks of UV lamps are installed in the 3'-0" wide channel. A 6" wide reduction baffle has been installed next to each bank of lamps. When peak flow increases to 4.2 mgd, the baffles will be removed and larger lamp racks will be installed. The level in the T-6 UV Tank is currently controlled by a fixed effluent weir. When peak flows of 2.1 mgd are reached at the WWTP, the fixed weir system will have excessive head loss and may promote bypassing of the UV lamps; At that time, the fixed weir system will need to be replaced by a tilting weir system.

The flow then enters the T-7 Utility Water Clearwell (Refer to Section B.5, below).

The final step is the PF-1 Parshall Flume, where flow is measured prior to its discharge to the Rappahannock River. The PF-1 Parshall Flume has a range of 0 to 5.0 mgd.

B.2 PRELIMINARY TREATMENT

The Preliminary Treatment section of the WWTP includes the following units:

- T-1 Automated Bar Screen
- T-2 Grit/Grease Removal System, and
- K-2(A through E) Blowers (on the B-1 Blower Pad).

Raw sewage from the Tinpot Run Pump Station is discharged into an open channel leading to the Automated Bar Screen in structure T-1. The Bar Screen is a series of 3/8 wide stainless steel vertical bars on 1" centers in the wastewater channel, installed 80° from the horizontal, that screens out coarse wastewater debris. When adequate wastewater debris is caught on the bar screen, the head loss through the screen increases and the water level upstream of the bar screen increases. A float switch detects the elevated water level and starts the bar screen rake mechanism. The rake removes the screenings and discharges them into a self dumping container. After the screenings are removed, the water level should become lower and the bar screen will become inactive until the next cycle. A Manual Bar Screen is installed in a channel parallel to the above described Automated Bar Screen. It is identical in operation, except that screenings must be removed by hand rake, and disposed of manually. The Manual Bar Screen would normally be used in the event that the Automated Bar Screen is taken out of service for maintenance or repair.

Raw wastewater can be directed to either the Automated Bar Screen or the Manual Bar Screen (or both) by operation of the S-1, S-2, S-3, and S-4 slide gates in the T-1 structure. Screenings are carted away for disposal at a local landfill.

Effluent from the Bar Screens flows to the Grit/Grease Removal System in structure T-2. Flow enters a 51'-0" long x 5'-3" wide x 9'-9" deep "shaped" chamber, where diffused air washes organics from grit, allowing the grit to settle to the bottom and keeping the organics in suspension. The grit is removed from the bottom of the chamber by a grit pump (100 gpm @ 10" TDH), which is mounted on a traveling bridge. The traveling bridge moves along the length of the T-2 tank when activated by a timer or when operated in a manual mode. The grit is discharged to the 16" wide Grit Discharge Trough on the North side of the T-2 structure. The Grit Discharge Trough drains to a Grit Classifier, which separates the grit from the wastewater. Grit is conveyed to a dumpster and the remaining wastewater drains to the plant drain system, which flows to Pump Station PS-2.

A grease removal chamber is located parallel to the grit removal chamber. The grease floats to the surface and is removed by a scum boom, which is mounted on the same traveling bridge that the grit pump is mounted on. The scum boom moves the floating grease to West end of the grease removal chamber, where it is removed by a grease hoist. The grease hoist lifts the grease to a grease chute, which discharges to a grease dumpster.

If the Grit/Grease Removal System needs to be taken out of service, it can be bypassed by closing slide gate S-2 in the T-2 structure and opening the 16" plug valve on the south side of the T-2 structure.

Diffused air to the Grit/Grease Removal System comes from the K-2a and K-2b Blowers on the B-1 Blower Pad. Each blower is rated 62 scfm @ 3.4 psig. One unit is normally in operation and the other unit is standby. Wastewater effluent from the Preliminary Treatment units T-1 and T-2 flows to the SB-1 Splitting Box and then to the T-3 Aeration Tanks.

B.3 ACTIVATED SLUDGE PROCESS

Underflow from the T-4A and T-4B Final Clarifiers is withdrawn by Return Activated Sludge Pumps P-1A, P-1B or P-1C or by Heavy Sludge Pump P-2, all of which are located in the lower level of the PS-1 Activated Sludge Pump Station. Each of the P-1 Pumps are rated 450 to 675 gpm @ 12' to 13' TDH, and receives flow from the T-4 sludge rapid withdrawal system. The P-1 Pumps can be used to increase biomass in the T-3 Aeration Tanks by returning sludge (Return Activated Sludge) to them, or to remove solids from the system by wasting sludge (Waste Activated Sludge) to the ET-1 Aerobic Digester. The P-2 Heavy Sludge Pump withdraws sludge from a hopper on the bottom of the T-4 Final Clarifiers and wastes sludge (Waste Activated Sludge) to the ET-1 Aerobic Digester. The P-2 Heavy Sludge Pump should be used occasionally, to remove heavy solids that are not readily withdrawn by the T-4 sludge rapid withdrawal system. The P-2 Heavy sludge Pump is rated 150 gpm @ 36' TDH.

The dissolved oxygen, nitrate and ammonia concentrations in the aeration basins are automatically monitored and provide automatic control for the aeration blowers. DO is monitored via luminescent dissolved oxygen sensors located within the aeration basin. Nitrate and ammonia are monitored by the process analyzer located in the sampling building. Two (2) 25 gpm @ 23 psi progressive cavity pumps are provided for transporting aeration basin sample to the process analyzer. Sample effluent is returned to the aeration tank splitter box.

B.4 DENITRIFICATION FILTERS

Final clarifier effluent flows by gravity through 24" pipe to the denitrification filter feed well. Five (5) filter feed pumps feed final clarifier effluent to the top of the filter influent channel. The filter feed pumps are each rated for 1,045 gpm @ 14.1' TDH. The filter influent channel feeds four (4) denitrification filters. Filtered effluent flows through a 24" pipe to the post aeration tanks. Methanol may be added to the final clarifier effluent as a supplementary carbon source for denitrification. Two (2) methanol metering pumps are provided with a capacity of 0.33 – 20 gph @ 100 psig.

The filters may be operated in rising or constant filter level modes. In rising filter level operating mode the influent and effluent valves are in the fully open position. When the water level reaches a high alarm a backwash sequence will be automatically initiated. In constant level mode the filter influent valve is in the fully open position and the filter effluent valve will modulate to maintain a level setpoint in the filter. When the filter effluent valve reaches 100% open a backwash sequence will be automatically initiated.

Two (2) filter backwash pumps are provided to feed filtered effluent up through the bottom of the filters during backwash cycles. The filter feed pumps are rated for 1,045 gpm @ 21' TDH. A backwash supply well is provided to maintain a steady source of filtered effluent water for backwash. Backwash waste is collected in the backwash waste well and is pumped to the head of the plant by one of two (2) backwash waste pumps. The backwash waste pumps are rated for 75 gpm @ 40' TDH.

B.5 WASTE SLUDGE PROCESSING

As a result of the Enhanced Nutrient Removal Upgrade the sludge surge tanks, sludge pump station and valve control station are no longer in use. The surface aerators and concrete walls have been removed from the aerobic digester. New walls were installed with influent gates to isolate the digester halves. The ET-1 Aerobic Digester stabilizes the WAS (waste activated sludge) pumped from the T-4 Final Clarifiers. Waste activated sludge is pumped from the final clarifiers to the aerobic digester where it can be diverted to either half of the digester. The aerobic digester is aerated by 6" air diffuser headers and three (3) 1,400 scfm positive displacement blowers. Supernatant is decanted from the digester and is pumped to the headworks by two (2) 200 gpm submersible non-clog supernatant pumps. Thickened sludge is then pumped to the sludge holding tanks by two (2) 200 gpm submersible non-clog supernatant pumps. Sludge is pumped from the sludge storage tank to the centrifuge for dewatering.

Sludge from the ET-3A Sludge Holding Tank or the ET-3B Septage Holding Tank is transferred by Pump EP-9 in Building EB-3 to the Centrifuge for dewatering. In the event that the centrifuge is off line, a limited quantity of solids can be held in the system, or the EB-2 Sludge Drying Beds can be used to dewater the sludge. Sludge from Septage Holding Tank ET-3B can also be returned to the T-1 Bar Screen by the P-10A and B-10B Sludge Pumps in Building EB-5. The P-10 Sludge Pumps are each rated 135 gpm @ 6' TDH.

Dewatered sludge is trucked to a land application site.

B.6 UTILITY WATER

Plant effluent is the source of the non-potable utility water used in process units:

- Yard hydrant water
- Seal water system for pumps.

The Utility Water System of the WWTP includes the following units:

- T-7 Utility Water Well
- P-1A, P-1B and P-1C Utility Water Pumps (in Pump Station PS-1)
- Motor Operated Strainer (in Pump Station PS-1)
- Manually Operated Strainer (in Pump Station PS-1)
- 3" Utility Water Flow Meter (in Pump Station PS-1)

Water from the T-7 Utility Water Well is piped to the suction side of the P-1A, P-1B and P-1C Utility Water Pumps in the basement of the PS-1 Activated Sludge Pump Station. Each Utility Water Pump is rated 60 gpm @ 140' TDH. Under low demand conditions, one (1) Utility Water Pump is in operation. When the Utility Water Flow Meter registers a threshold flow of 60 gpm, a second pump comes on line to meet the higher demand. To protect equipment and prevent clogging of piping, utility water passes through a strainer box at the bottom of the T-7 Utility Water Well and a Motor Operated Strainer located on P-1 pump discharge piping in PS-1, which removes large solids. If the Motor Operated Strainer needs to be taken out of service, the two (2) 4" butterfly isolation valves can be closed and the two (2) 4" butterfly isolation valves to the Manually Operated Strainer can be opened.

In addition to providing water to the yard hydrant system, the Utility Water System provides the following pumps (in the basement of the PS-1 Activated Sludge Pump Station) with seal water:

- P-1A Return Activated Sludge Pump
- P-1B Return Activated Sludge Pump
- P-1C Return Activated Sludge Pump
- P-2 Heavy Sludge Pump

B.7 REGIONAL PUMP STATIONS

The 3,500 gpm (gallons per minute) Tinpot Run Pump Station will serve the Remington area and the 2,250 gpm Craig Run Pump Station will serve the Bealeton area. Both pump stations utilize variable frequency drives and standby power generators.

Table 3.1: Wastewater Treatment Plant Technical Data Summary

| | | |
|------------------|---|--|
| T-1 | Bar Screens (2) | 1 - Mechanically cleaned, 5/8" openings 1 - Manually cleaned, 5/8" openings |
| T-2 | Grit Chamber (1) | 51' long x 5'-3" wide x 10' depth |
| T-2 | Grease Chamber (1) | 51' long x 4' 8" wide |
| K-2A, B | Blowers (2) | 62 scfm |
| T-3A, B | Aeration Reactor (2) | 122' diameter x 14' sidewater depth |
| K-1A, B, C, D, E | Blowers (5) | 1,100 scfm |
| T-4A, B | Final Clarifiers (2) | 65' diameter x 14' sidewater depth |
| T-5A, B | Post Aeration Tanks (2) | 21' long x 6' wide x 15' sidewater depth |
| K-3A, B | Blowers (2) | 140 scfm |
| T-6 | UV Disinfection Tank | 41'-6" long x 3' long x 2' depth 3 banks of UV lamps @ 8 kw each |
| T-7 | Utility Water Clearwell | |
| PF-1 | Parshall Flume for effluent metering | |
| P-3A, B, C | Utility Water Pumps | |
| ET-1 | Aerobic Digester | 294' long x 17'-6" wide x 9' sidewater depth |
| K-4A, B, C | Blowers (3) | 1,400 scfm |
| | Digester Supernatant Pumps (2) | 200 gpm @ 20' TDH |
| | Thickened Sludge Pumps (2) | 200 gpm @ 20' TDH |
| ET-2A, B | Gravity Thickeners | |
| P-8A, B | Sludge Recirculation Pumps | |
| ET-3A | Septage Pumps in Existing Building (EB-5) | |
| ET-3B | Sludge Pumps | |

| | | |
|----------|-----------------------------|--|
| P-10A, B | Polymer Pumps | |
| EP-9, 10 | Standby Power Generator | 500 KVA, 400 KW |
| | Denitrification Filters (4) | 9.5' wide 18.25' long 2.0 mgd Average Flow 2.0 gpm/sf Average Filtration Rate 6.0 mgd Peak Flow 6.0 gpm/sf Peak Filtration Rate |
| | Filter Feed Pumps (5) | 1,045 gpm @ 14.1' TDH |
| | Backwash Supply Pumps (2) | 1,45 gpm @ 21' TDH |
| | Backwash Waste Pumps (2) | 75 gpm @ 40' TDH |

Tinpot Run Pump Station Technical Data

Wastewater Pumps 3 - submersible pumps (1736 gpm @ 95' TDH each)

Standby Power Generator 250 KVA, 200 KW

Craig Run Pump Station Technical Data

Wastewater Pumps 3 - submersible pumps (1125 @ 110' TDH each)

Standby Power Generator 250 KVA, 200 KW

C. EXPECTED WWTP INFLUENT/ EFFLUENT CONCENTRATIONS

The estimated wastewater quantity and characteristics are based on the existing wastewater plus estimated characteristics of future wastewater. Population equivalents are used to estimate design load to the wastewater treatment process.

1. BOD₅ Design Load

The 2008 Enhanced Nutrient Removal Upgrade was designed around a maximum month BOD₅ concentration of 264 mg/L and an annual average BOD₅ concentration of 221 mg/L, with a 2.0 mgd flow this equates to daily loadings of 4,400 and 3,690 lbs/day respectively.

2. Suspended Solids Loading

The 2008 Enhanced Nutrient Removal Upgrade was designed around a maximum month TSS concentration of 245 mg/L and an annual average TSS concentration of 205 mg/L, with a 2.0 mgd flow this equates to daily loadings of 4,090 and 3,420 lbs/day respectively.

Table 3.2: Design Loads

| Parameter | Annual Average | Maximum Month |
|---------------------------------------|----------------|---------------|
| COD, mg/L | 460 | 551 |
| BOD ₅ , mg/L | 221 | 264 |
| Volatile Suspended Solids, mg/L | 183 | 219 |
| Total Suspended Solids, mg/L | 205 | 245 |
| Total Kjeldahl Nitrogen, as N, mg/L | 44.6 | 53.6 |
| Ammonia Nitrogen, as N, mg/L | 31.1 | 37.3 |
| Total Phosphorus, mg/L | 6.6 | 7.8 |
| Ortho-Phosphate, as P, mg/L | 4.4 | 5.3 |
| Alkalinity, mg/L as CaCO ₃ | 300 | 300 |
| Temperature, °C | 17.5 | 10 |

3. Effluent Requirements

The effluent requirements for the designed facilities are:

| | |
|--------------------------|-------------------------|
| CBOD ₅ , mg/l | 20 |
| SS, mg/l | 20 |
| pH, su | 6 to 9 |
| DO, mg/l | 6.5 or greater any time |
| Total Nitrogen, lbs/year | 24,364 |
| Total Phosphorus | 1,827 |

D. DETAILED UNIT PROCESS DESCRIPTIONS

1. Final Clarifiers (T-4A and T-4B)

Two clarifiers, T-4A and T-4B, are each 65 feet in diameter (total of 6,637 ft²) and fourteen feet side water depth.

Final clarifier hydraulic loadings for both 2.0 mgd permitted flow and 2.5 mgd design flow are summarized in Table 3.3.

Table 3.3: Secondary Clarifier Design Criteria

| | 2.0 mgd Permitted Flow | | 2.5 mgd Future Flow | |
|--|---------------------------|-----------|------------------------|-----------|
| | Average Flow | Peak Flow | Average Flow | Peak Flow |
| Influent Flow, mgd | 2.0 | 6.0 | 2.5 | 7.5 |
| RAS Flow, mgd | 2.0 | 2.0 | 2.5 | 2.5 |
| Surface Overflow Rate, gpd/ft ² | | | | |
| -all clarifiers in service | 301 | 904 | 377 | 1,130 |
| -one clarifier out of service | 603 | 1,808 | 753 | 2,260 |
| Weir Loading Rate, gpd/ft | | | | |
| -all clarifiers in service | 4,897 | 14,691 | 6,121 | 18,364 |
| -one clarifier out of service | 9,794 | 29,382 | 12,143 | 36,728 |
| Solids Loading Rate, lbs/hr-ft ² | | | | |
| -all clarifiers in service | 0.4 | 1.0 | 0.6 | 1.5 |
| -one clarifier out of service | 0.8 | 1.9 | 1.2 | 3.0 |

A solids flux analysis was performed to determine the maximum MLSS concentration that can be applied to the existing 65-foot diameter clarifiers at the maximum month and maximum day flows. The solids flux analysis was based on the 95th percentile sludge volume index (SVI) over the period from December 2004 through July 2006,

which was 133 mL/g. A peak day flow of 2.5 times the influent flow was assumed for the analysis. The maximum operational MLSS concentrations predicted by the solids flux analysis are presented in Table 3.4.

Table 3.4: Maximum MLSS Concentrations

| | Maximum Month | Maximum Day |
|-------------------------------|----------------------|--------------------|
| 2.0 mgd Permitted Flow | | |
| Influent Flow, mgd | 2.0 | 5.0 |
| Maximum MLSS, mg/L | | |
| -all clarifiers in service | 7,500 | 4,300 |
| -one clarifier out of service | 5,800 | 3,000 |
| 2.5 mgd Future Flow | | |
| Influent Flow, mgd | 2.5 | 6.25 |
| Maximum MLSS, mg/L | | |
| -all clarifiers in service | 7,100 | 4,000 |
| -one clarifier out of service | 5,200 | 2,300 |

The existing secondary clarifiers have sufficient capacity to treat the 2.0 mgd design flow, assuming both clarifiers are in service during peak flow and loads. Care should be taken to limit MLSS concentrations to less than 3,000 mg/L during peak flow events if one clarifier is out of service to prevent solids breakthrough.

Hydraulic and solids loading rates on the existing secondary clarifiers will be excessive during peak flow events associated with the 2.5 mgd design flow, particularly if one clarifier is out of service. The existing clarifier capacity is adequate for the expected range of flows and MLSS concentrations at the maximum month load at a 2.5 mgd design flow. However, the flux analysis indicates that the clarifiers are expected to fail during maximum day conditions if one clarifier is out of service, and may become critically loaded with both clarifiers in service.

Implementation of wet weather flow strategies and/or construction of a third secondary clarifier to accommodate an expansion to 2.5 mgd are necessary to ensure adequate performance during sustained peak hydraulic flows, particularly if a clarifier is out of service.

2. Aeration Basin Volume (T-3A and T-3B)

1992 Plant Design

The aeration volume of the two existing Schreiber aeration tanks was determined through modeling of the activated sludge process. A discussion of mathematical model relationships and results are presented in Appendix F. In addition to the design parameters, inputs to the model include the clarification underflow area and the reaction temperature. Other inputs are reaction kinetic rates and constants for sludge settling characteristics (presented in Appendix F-1).

In pages 1 through 6 of Appendix F-2, process performance is estimated as the aeration volume is increased. Nitrification is the parameter of primary concern, and it is examined as the nitrification safety factor (NSF). NSF is the ratio of sludge age divided by the generation time for nitrification bacteria. The ratio must be greater than 1.0 for the potential for nitrification to exist. The influent to the process have diurnal variability, and the nitrification process will not become stable until the NSF value is about equal to or greater than the variability. Thus, a NSF 2.0 to 2.5 is desirable. A safety factor of 2.5 is attained with an aeration volume of about 1.8 mg when the mixed liquor solids are maintained conservatively low at 3,500 mg/l (Appendix F-2, pages 1 and 2).

Modeling on pages 7 and 8 of Appendix F-2, process performance is estimated with one clarifier out of service, with an aeration volume of 1.8 mg, and a mixed liquor concentration of 3,500 mg/l. The resulting NSF is 2.2, and nitrification would remain stable.

On pages 9 and 10 of Appendix F-2, process performance is estimated when one aeration basin is out of service. The mixed liquor concentration remains at 3,500 mg/l.

The NSF of 1.1 is not acceptable. On pages 11 and 12, the mixed liquor is increased to 4,000 mg/l. The increase of NSF to 1.3 is not adequate.

On pages 13 and 14 of Appendix F-2, the aeration volume is increased 2.4 mg

(1.2 mg in one basin). The estimated NSF is 1.8 which is marginal for a stable nitrification process at the April conditions, but this condition is acceptable for the infrequent event of one aeration basin out of service in April. Figure 4 shows the change in NSF for different aeration volumes for April performance.

2008 Enhanced Nutrient Removal Upgrade and Expansion to 2.0 mgd

In order to meet the future design flow capacity and nutrient discharge limits Remington WWTP will be required to operate the existing aeration basins aerobically and construct new anaerobic/ pre-anoxic facilities upstream of the existing basins.

The future design capacity flow of 2.0 mgd was modeled through steady state simulations to predict operational criteria and effluent quality under annual average and maximum month conditions. A NRCY rate of 400% of the influent flow (8.0 mgd) was assumed for the evaluation. Since the deep bed filters will primarily be used for solids removal and nitrate trim, reduced hydraulic loading rates are appropriate under these alternatives. A hydraulic loading rate of 3.0 gpm/ft² was considered in the evaluation. Significantly better effluent quality was predicted with the upstream anaerobic/pre-anoxic zone in comparison to the current CSR configuration, particularly during maximum month conditions.

Table 3.5: Predicted Operations and Effluent Quality Annual Average Conditions

| Parameter | Annual Average Conditions | Maximum Month Conditions |
|--|--|---|
| Aerobic SRT, days | 15 | 15 |
| MLSS (2.0 mgd design), mg/L | 1,900 | 2,300 |
| MLSS (2.5 mgd design), mg/L | 2,400 | 2,900 |
| Effluent NH ₃ -N, mg/L | 0.5 | 1.0 |
| Effluent TKN, mg/L | 2.5 | 3.2 |
| Secondary Effluent NO ₃ -N, mg/L | 3.8 | 4.5 |
| Effluent NO ₃ -N, mg/L | < 1.5 ² | < 0.8 ² |
| Effluent TN, mg/L | 4.0 ² | 4.0 ² |
| Effluent PO ₄ -P, mg/L ³ | < 0.2 | < 0.2 |
| Effluent TP, mg/L ³ | 0.3 | 0.3 |
| Effluent CBOD ₅ , mg/L | < 5.0 | < 5.0 |
| Effluent TSS, mg/L | < 5.0 | < 5.0 |

¹ 2.0/2.5 mgd design flows

² After nitrate trim at deep bed filters

³ After chemical phosphorus trim at deep bed filters

⁴ Assumes Methanol Addition

The aeration system required increased capacity to provide for enhanced nutrient removal for the permitted 2.0 mgd flow. The diffusers and header holder assembly were replaced in the recent upgrade to provide sufficient aeration capacity.

The air demand calculations are provided in Appendix F. 672 diffusers have been provided for each of the 8 rotating headers per aeration tank resulting in a total of 10,752 diffusers to meet maximum aeration demand. The aeration blowers have been upgraded to provide five (5) positive displacement blowers with a capacity of 1,100 scfm each. To meet the 2.0 mgd flow air demand.

3. Oxygen Transfer (B-2)

The peak hour 2.0 mgd oxygen requirement is 12,216 lb O₂/day. The maximum air requirement is 4,550 scfm. Accordingly, the aeration blowers have been upgraded to provide five (5) positive displacement blowers with a capacity of 1,100 scfm each. See Appendix F for a more detailed description of air demand calculations.

4. Design for Denitrification Filters

Denitrification filters are designed to reduce nitrate levels coming from the secondary process. The deep bed denitrification filters have a design filter loading rate of 2 gpm/sf. Four 173 ft² filters provide a total area of 692 ft² and would meet this recommended loading rate at the 2.0 mgd design flow. Additional filters may be added to expand capacity to 2.5 mgd in the future.

New methanol storage and feed facilities provide supplemental carbon for enhanced denitrification. The storage and feed facilities may also accommodate alternative carbon sources such as sugar water. Methanol feed pumps provide methanol feed to the influent to the denitrification filters.

5. UV Irradiation (T-6)

The Virginia Department of Health provides the following guidelines for UV disinfection units.

- Effluent filtered to consistently provide a quality of (K)AB (base e) of no more than 0.4/cm
- Spacing between lamps not greater than 8 cm
- At least 90% of light output at 253.7 nm
- 120 µW/cm² at 1 meter from source
- Minimum average UV dose of 30,000 µWatt-seconds/cm² after 7,500 hours
- E value to be no more than 100 cm²/second
- Contact time (RTD dimensionless variable): 10 seconds
- Fecal coliform level to be consistently maintained at 200/100 ml or less.

The proposed UV irradiation system is a single channel with three modules. The channel is 36 feet long by 27 inches wide by 48 inches deep. One module is a standby module.

6. Post Aeration Basins (T-5A and T-5B)

If the wastewater entering the basin is devoid of oxygen, the transfer capacity must increase the DO to 6.5 mg/l at any time. At a flow of 5 mgd, the required oxygen transfer is 271 lb/day. For maximum efficiency, reaeration should be a plug flow process, and fine-bubble aeration is proposed.

The plug-flow reaction can be divided into logarithmic intervals because the completion of reaction will be first order. Since, logarithmically, the reaction is never completed, it is convenient to model the reaction as partly complete. For example, use a piece of semilog graph paper and divided 90 percent completion of the reaction into 14 equal intervals (each one-half inch on the linear scale). Specifically, designate 10 on the log-y scale as "100% of the reaction remaining" and draw a straight line that has a negative slope across the width of the semilog paper, to the right side, to one on the log scale (ten percent of the reaction remaining).

The reaction in this case is reaeration at 25°C. In a 15 foot deep basin, the expected DO saturation value at 25°C is about 9.7 mg/l. The reaction increases the DO toward 9.7 mg/l, and the 14 one-half inch intervals on the graph paper increase the DO to 90 percent or 9.7 or 8.75 mg/l. In the following table, each interval is designated as a reaction stage. The objective DO of 6.5 is exceeded in the seventh stage.

Table 3.6: Post Aeration DO

| Stage | Percent of Reaction | Outlet Do mg/l |
|-------|---------------------|----------------|
| 1 | 15 | 1.5 |
| 2 | 28 | 2.7 |
| 3 | 39 | 3.8 |
| 4 | 48 | 4.7 |
| 5 | 56 | 5.4 |
| 6 | 63 | 6.1 |
| 7 | 68 | 6.6 |

The first stage completes fifteen percent of the reaeration (about 41 lb/day of oxygen transfer). Each following stage will achieve an equal percentage of the reaction remaining, and each stage will require the same amount of aeration effort (the same air flow). Thus, when the oxygen transfer is sized for the first stage, six additional stages that have the same oxygen transfer capability are required to bring the DO to 6.5 mg/l as 25 °C.

$$\text{Air/stage, scfm} = \frac{41}{1440 \times 0.0752 \times 0.209 \times 0.09}$$

$$\text{Air/stage, scfm} = 20.1$$

The proposed reaeration basin is 6 feet wide, 21 feet' long, and had a 15-foot SWD. About 6.7 scfm of air is provide per foot of basin length. *For example, if Envirex fine-bubble diffusers are used, there should 14 diffusers located as two across the tank and in seven rows down the tank., spaced at three-foot intervals. The maximum flow rate per diffuser would be 10 scfm which would be required at a peak flow of 5 mgd.*

There should be two reaeration basins so that one can be taken out of service for maintenance and cleaning. The reaeration basins should be located before the UV disinfection units.

7. Aerobic Digestion of Sludge (ET-1)

Oxidation Ditch No. 3 was previously converted to an aerobic digester and the plant had also been using associated 25-foot I.D. clarifiers to provide about 489,000 gallons of storage volume. The Schreiber biological treatment reactor that had been utilized for aerobic stabilization was required for liquid treatment as flows to the treatment facility increase to 2.0 mgd. Additionally, the previous practice of intermittently operating secondary clarifier solids removal equipment for sludge thickening has been discontinued as flows and effluent nutrient removal expectations increase resulting in a more dilute solids concentration feeding the aerobic digestion process. The loss of aerobic stabilization volume associated with one of the Schreiber tanks, combined with a more dilute solids stream, and has resulted in a significant reduction in the aerobic stabilization

reactor hydraulic residence time.

Estimated oxidation ditch residence times are approximately 10.5-days and 9.0-days, respectively, under annual average and maximum month loading conditions at the 2.0 mgd permitted flow based on expected solids production rates and a 0.75% (7,500 mg/L) waste activated sludge feed solids concentration. Under winter operating conditions with a liquid feed temperature of 11.5°C, the digestion intensity is approximately 121 °C-days under average annual loading conditions which is well below the 800-900 °C-days recommended in 40 CFR 503 for aerobic stabilization processes under the Process to Significantly Reduce Pathogen (PSRP) requirements. The anticipated winter volatile solids reduction rates are estimated at 17.5% and 15.0%, respectively, under average annual and maximum month design loading rates. Therefore, it is expected that using the existing oxidation ditch to provide residuals stabilization of the unthickened waste activated sludge will not achieve the Class B pathogen reduction or vector attraction reduction requirements to land apply the dewatered residuals. Gravity belt thickening facilities will be required to thicken waste activated sludge to 4.0% TS to achieve Class B pathogen reduction and vector attraction reduction at the 2.0 mgd design flow. However, the installation of fine bubble diffusers to provide additional oxygen transfer capacity and decanting equipment to the oxidation ditch to improve aerobic stabilization will allow sludge to be thickened to approximately 2.0 percent and support operation for influent flows up to 1.2 mgd without installing the gravity belt thickening facilities. Current flow projections indicate the Remington WWTP will approach 1.2 mgd in 2017. When the average plant flow approaches 1.2 mgd, FCWSA should proceed with design and construction of the gravity belt thickening facilities or evaluate treatment alternatives to provide a Class A residual product.

The aerobic stabilization liquid feed volumes and performance are estimated based on a thickened waste activated sludge feed concentration of 4.0% from the future gravity belt thickening facility and the existing oxidation ditch total volume of 430,000 gallons. Winter and summer operating conditions are estimated based on operating temperatures of 11.5°C and 25.0°C, respectively. Aerobic stabilization system feed

volumes and loading rate criteria are summarized in Table 3.6.

Table 3.7: Aerobic Digester Loading Rates

| | Average Annual | Maximum Month |
|---|----------------|---------------|
| Pre-Digestion Mass Rate, lbs TS/day | 2,560 | 3,000 |
| Pre-Digestion Volatile Fraction, %VS | 65% | 65% |
| Pre-Digestion Mass Rate, lbs VS/day | 1,664 | 1,950 |
| Volatile Solids Loading, lb/day-ft ³ | 0.029 | 0.034 |
| TWAS Flow (at 4.0% TS), gallons/day | 7,674 | 8,993 |
| Hydraulic Retention Time, days | 56.0 | 47.8 |

Oxidation ditch volume (430,000 gallons) is approximately 22% of the 2.0 mgd permitted average annual flow which is in excess of the minimum 20% volume fraction under the requirements of 9 VAC 25-790-560 (B)(2) and the anticipated volatile solids loading rates are well below the 0.10 to 0.20 lb/day-ft³ rate range under the requirements of 9 VAC 25-790-560 (C).

Aerobic digester reactor performance is estimated as shown in Table 3.7. Estimated volatile solids reduction in the aerobic digestion system is based on typical operating data for aerobic digestion systems (WEF, MOP-8, Figure 18.13, Volume II, page 1231, 1992).

Table 3.8: Aerobic Stabilization Performance

| | Winter | | Summer | |
|----------------------------------|------------------------|-----------------------|------------------------|-----------------------|
| | Average Annual Loading | Maximum Month Loading | Average Annual Loading | Maximum Month Loading |
| Digestion Intensity, °C-days | 644 | 550 | 1,401 | 1,195 |
| Volatile Solids Mass, lbs VS/day | 1,664 | 1,950 | 1,664 | 1,950 |
| Volatile Solids Reduction, % | 42.6% | 41.0% | 51.0% | 49.0% |
| VS Destroyed, lbs VS/day | 709 | 800 | 948 | 1,073 |

| | | | | |
|---------------------------------|-------|-------|-------|-------|
| Post-Digestion Mass, lb TS/day | 1,851 | 2,201 | 1,711 | 2,045 |
| Post-Digestion Solids, %TS | 2.89% | 2.93% | 2.67% | 2.73% |
| Post-Digestion VS Fraction, %VS | 51.6% | 52.3% | 47.6% | 48.6% |

Oxygen transfer requirements are estimated for the annual average and maximum month loading conditions based on an oxygen requirement of 2.0 pounds oxygen per pound volatile solids destroyed to accommodate both volatile solids destruction and nitrification of mineralized nitrogen compounds. Oxygen transfer requirements under the maximum summer condition are estimated in Table 3.8.

Table 3.9: Aerobic Digester Oxygen Transfer Requirements Under Maximum Summer Conditions

| | Average Annual | Maximum Month |
|---|----------------|---------------|
| Volatile Solids Loading, lbs VS/day | 1,664 | 1,950 |
| Volatile Solids Reduction, %VSR | 57.0% | 55.0% |
| Volatile Solids Destroyed, lbs VS/day | 950 | 1073 |
| Oxygen Requirement, lbs O ₂ /day | 1,900 | 2,145 |
| Existing Transfer Capacity, lbs O ₂ /day | 1,200 | 1,200 |
| Additional Transfer Capacity, lbs O ₂ /day | 700 | 945 |

As shown in Table 3.8, the previous brush aerator oxygen transfer system at the oxidation ditch did not have sufficient capacity (1,200 lbs O₂/day) to meet the maximum anticipated oxygen demand for aerobic stabilization at the treatment plant capacity (2,145 lbs O₂/day). Additional oxygen transfer capacity utilizing fine bubble diffused air was added as part of the 2008 Enhanced Nutrient Removal Improvements Project to boost the available oxygen transfer capacity to meet the maximum anticipated oxygen demand.

A fine bubble aeration system was installed during the enhanced nutrient removal upgrade. Three (3) positive displacement blowers with a capacity of 1,400 scfm @ 9.5 psig provide sufficient oxygen transfer to meet the 2,145 lbs O₂/day maximum

month oxygen requirement. The fine bubble aerations system consists of a total of 1,400 membrane diffusers on two grids.

E. PROCESS FLOW DIAGRAM

A process flow diagram is attached to the end of this section. The table below presents a summary of unit operation details.

Activated Sludge

Schreiber aeration basins
Oxygen transfer
Blowers

SUMMARY OF WWTP PROCESS-UNIT SIZES

| Process Operation | No. of Units | Size |
|---|--------------|--|
| Grit and grease removal | 1 | Grit: 51-foot long by 4-foot-8-inch wide by 9-foot-9-inch SWD Grease: 51 foot long by 5 foot 3-inch wide Two 2.4-hp air blowers - 55 cfm |
| <u>Activated Sludge</u> | | |
| Schreiber aeration basins Oxygen transfer | 2 | 122-foot diameter, 14-foot SWD Maximum transfer of 7,800 lb/day AOR |
| Blowers | 5 | 1,100 scfm |
| Returned sludge pumping | | 2 mgd for the 2.0-mgd WWTP |
| Tertiary (Denitrification) Filters | 4 | 9.5' x 18.25' |
| Final clarifiers | 2 | 65-foot diameter units, 14-foot SWD, rapid sludge withdrawal |
| Disinfection - UV irradiation | 1 | One 36-foot long by 48-inch deep by 27-inch wide channel. The channel contains three modules, that provide 50,160 i_tWatt-sec/cm ² at 0.5 transmission. |
| Reaeration basin | 2 | 6 feet wide by 21 feet long, with 15-foot SWD. Firm air supply of 140 scfm. |
| Aerobic digestion | 1 | Oxidation Ditch No. 3 has been converted to Aerobic Digestion. Volume: 430,000 gallons Blowers: Three (3), 1,400 scfm @ 9.5 psig |

Attachment C

A TACHMENT C

RECYC SYSTEMS, INC.
2011 ANNUAL REPORT
BIOSOLIDS LAND APPLICATION
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

RECYC SYSTEMS, INC.

P.O. BOX 562
REMINGTON, VIRGINIA

540-547-3300

8455 WHITE SHOP
CULPEPER, VIRGINIA

Recyc Systems has prepared and submits our annual summary report of biosolids land application for the 2011 year. The monthly reports should be referenced for detailed information regarding individual land application sites.

Copies of this report have been concurrently submitted to the Virginia Department of Environment, Central Office and Regional Offices and the Local County Administrator or his designee where Recyc Systems conducted operations.

This report was prepared on behalf of Recyc Systems, Inc. by Susan Trumbo, Vice President-Technical Manager. Submitted February 2012.

GENERAL OPERATIONS:

Field Operations were conducted in accordance with DEQ Biosolids Use Regulations and DCR Nutrient Management Regulations.

Field Operations used the Operations and Management Manual submitted to Virginia Department of Environment 2008. The O&M was last revised in December 2010.

At year end, Recyc Systems has fifteen DEQ Certified Field Managers on staff. Daily field logs are signed off by a Certified Field Manager.

The monthly report was sent electronically to DEQ and localities where field operations were conducted that reporting period.

Recyc Systems prepared a Nutrient Management Plan for sites prior to application of biosolids, "target plan". After application of the biosolids, the plan was revised to show actual tons applied and the commercial fertilizer recommendations were revised accordingly, "revised plan". The revised plan was provided to the farmer with copies sent to DCR and the locality.

Recyc Systems takes soil samples of fields prior to application of biosolids. Fields with soil samples greater than three years are resampled. Lime recommendations from the lab are being used to calculate application rates.

At the request of DEQ-CO, Recyc Systems' daily notice of field operations by e-mail is sent to DEQ and all County Biosolids Monitors.

BIOSOLIDS MONITORING REPORTS

2011

Recyc Systems continues to use A & L Laboratories for analysis of biosolids samples and soil samples.

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Albe Lake
 Source Name: _____
 Biosolids Type (treatment method): Alum Sludge
 Monitoring period: Jan - Dec 2011
 Frequency: annual

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: not applicable
 Vector Attraction Reduction Alternative: not applicable
 Amount of Biosolids received during monitoring period: 2100 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | February | March | April | May | June | July | August | October | October | November | December |
| Percent Solids (%) | NA | NL | NA | | | | | | | | | | 3.10% | 3.09% | | |
| Volatile Solids (%) | NA | NL | NA | | | | | | | | | | 34.57% | 35.30% | | |
| Total Arsenic | NA | 41 | 75 | | | | | | | | | | 8 | 6 | | |
| Total Cadmium | NA | 39 | 85 | | | | | | | | | | <1.0 | 1 | | |
| Total Copper | NA | 1,500 | 4,300 | | | | | | | | | | 198 | 200 | | |
| Total Lead | NA | 300 | 840 | | | | | | | | | | <5 | <5 | | |
| Total Mercury | NA | 17 | 57 | | | | | | | | | | <0.4 | <0.4 | | |
| Total Molybdenum | NA | NA | 75 | | | | | | | | | | <5 | <5 | | |
| Total Nickel | NA | 420 | 420 | | | | | | | | | | 8 | 7 | | |
| Total Selenium | NA | 100 | 100 | | | | | | | | | | 4 | 2 | | |
| Total Zinc | NA | 2,800 | 7,500 | | | | | | | | | | 29 | 27 | | |
| TKN (%) | NA | NL | NA | | | | | | | | | | 0.77% | 0.81% | | |
| Ammonium Nitrogen (%) | NA | NL | NA | | | | | | | | | | 0.19% | 0.16% | | |
| Nitrate Nitrogen | NA | NL | NA | | | | | | | | | | <1.00 | <1.00 | | |
| Total P (%) | NA | NL | NA | | | | | | | | | | 0.08% | 0.07% | | |
| P ₂ O ₅ (%) | NA | NL | NA | | | | | | | | | | nt | nt | | |
| Total K (%) | NA | NL | NA | | | | | | | | | | 0.08% | 0.08% | | |
| pH (Std. Units) | NA | NL | NA | | | | | | | | | | 6.32 | 6.35 | | |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | | | | | | | | | <0.01 | <0.01 | | |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc, Richmond, Virginia

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

Adam Hanks Vice-Pres. Recyc Systems, Inc

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: DCWASA-Blue Plains

Source Name: Blue Plains

Biosolids Type (treatment method): Lime Stabilization

Monitoring period: Jan - Dec 2011

Frequency: monthly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826

Pathogen Control Alternative: Lime Stabilization

Vector Attraction Reduction Alternative: Lime Stabilization

Amount of Biosolids received during monitoring period: 19294.25 wet tons

Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | 28.35% | 28.83% | 31.22% | 33.15% | 39.23% | 33.68% | 31.69% | 35.91% | 34.68% | 38.27% | 33.92% | 32.17% | 31.06% |
| Volatile Solids (%) | NA | NL | NA | 68.03% | 68.06% | 61.27% | 56.51% | 63.39% | 65.90% | 62.19% | 53.00% | 56.47% | 56.45% | 56.08% | 61.99% | 55.12% |
| Total Arsenic | NA | 41 | 75 | 3 | 1 | 2 | 4 | 2 | 3 | 3 | 3.00 | 3 | 3 | 3 | 3 | 3 |
| Total Cadmium | NA | 39 | 85 | 1 | <1 | 1 | 1 | 1 | <1.0 | <1.0 | <1.0 | <1.0 | 1 | <1.0 | 1 | 1 |
| Total Copper | NA | 1,300 | 4,300 | 149 | 150 | 125 | 141 | 148 | 154 | 169 | 152 | 142 | 186 | 159 | 149 | 174 |
| Total Lead | NA | 300 | 840 | 35 | 22 | 21 | 29 | 26 | 24 | 20 | 21 | 21 | 27 | 26 | 22 | 28 |
| Total Mercury | NA | 17 | 57 | <0.4 | <0.4 | <0.4 | 0.9 | 0.7 | 0.4 | <0.4 | 0.7 | 0.5 | <0.4 | 0.6 | 0.4 | <0.4 |
| Total Molybdenum | NA | NA | 75 | 9 | 6 | 5 | 5 | 5 | 5 | 6 | 8 | 8 | 8 | 6 | 6 | 6 |
| Total Nickel | NA | 420 | 420 | 8 | 8 | 8 | 10 | 9 | 8 | 7 | 7 | 7 | 9 | 8 | 8 | 10 |
| Total Selenium | NA | 100 | 100 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | <1.0 | 2 |
| Total Zinc | NA | 2,800 | 7,500 | 322 | 309 | 260 | 309 | 329 | 371 | 378 | 349 | 343 | 377 | 333 | 314 | 345 |
| TKN (%) | NA | NL | NA | 4.34% | 4.68% | 4.36% | 3.98% | 3.77% | 3.30% | 4.39% | 4.26% | 4.27% | 3.27% | 3.86% | 4.04% | 4.16% |
| Ammonium Nitrogen (%) | NA | NL | NA | 0.32% | 0.30% | 0.18% | 0.16% | 0.11% | 0.57% | 0.21% | 0.22% | 0.23% | 0.21% | 0.16% | 0.20% | 0.21% |
| Nitrate Nitrogen | NA | NL | NA | 15.5 | 16.3 | 18.9 | 15.7 | 22.4 | 19.9 | 14.2 | 10.90 | 24.8 | 8.1 | 10.9 | 14.9 | 6.05 |
| Total P (%) | NA | NL | NA | 1.18% | 1.34% | 1.14% | 1.10% | 1.28% | 1.29% | 1.33% | 1.38% | 1.33% | 1.25% | 1.10% | 1.19% | 1.28% |
| P ₂ O ₅ (%) | NA | NL | NA | nl | nl | nl | nl | nl | nl | nl | nl | nl | nl | nl | nl | nl |
| Total K (%) | NA | NL | NA | 0.21% | 0.25% | 0.22% | 0.25% | 0.20% | 0.17% | 0.19% | 0.20% | 0.20% | 0.13% | 0.17% | 0.19% | 0.20% |
| pH (Std. Units) | NA | NL | NA | 10.43 | 9.91 | 12.28 | 12.3 | 12.16 | 12.02 | 12.31 | 12.36 | 12.31 | 12.33 | 12.38 | 12.35 | 12.36 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | 13.70% | 14.60% | 19.30% | 25.20% | 13.40% | 15.30% | 17.90% | 27.30% | 26.30% | 24.90% | 25.80% | 20.30% | 24.20% |

NL = No limitations, monitoring required NA = Not applicable * = Dry weight basis, unless otherwise stated ** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc. Richmond, Virginia

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc.

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Bowie
 Source Name: _____
 Biosolids Type (treatment method): Lime Stabilization
 Monitoring period: Jan - Dec 2011
 Frequency: quarterly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800
00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Lime Stabilization
 Vector Attraction Reduction Alternative: Lime Stabilization
 Amount of Biosolids received during monitoring period: 2321.05 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS* | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | 22.50% | | | | 20.26% | | | 23.35% | | | 21.18% |
| Volatile Solids (%) | NA | NL | NA | | 54.70% | | | | 56.53% | | | 44.92% | | | 50.72% |
| Total Arsenic | NA | 41 | 75 | | 3 | | | | 4 | | | 4 | | | 6 |
| Total Cadmium | NA | 39 | 85 | | 2 | | | | 5 | | | 3 | | | 5 |
| Total Copper | NA | 1,500 | 4,300 | | 596 | | | | 822 | | | 675 | | | 706 |
| Total Lead | NA | 300 | 840 | | 28 | | | | 40 | | | 35 | | | 35 |
| Total Mercury | NA | 17 | 57 | | 0.6 | | | | 1.4 | | | 0.7 | | | 0.9 |
| Total Molybdenum | NA | NA | 75 | | <5 | | | | <5 | | | <5 | | | <5 |
| Total Nickel | NA | 420 | 420 | | 13 | | | | 22 | | | 28 | | | 25 |
| Total Selenium | NA | 100 | 100 | | 6 | | | | 3 | | | <1.0 | | | 1 |
| Total Zinc | NA | 2,800 | 7,500 | | 342 | | | | 559 | | | 522 | | | 464 |
| TKN (%) | NA | NL | NA | | 5.38% | | | | 5.18% | | | 3.65% | | | 4.72% |
| Ammonium Nitrogen (%) | NA | NL | NA | | 0.20% | | | | 0.57% | | | 0.27% | | | 0.61% |
| Nitrate Nitrogen | NA | NL | NA | | 14.2 | | | | 6.42 | | | 7.28 | | | <1 |
| Total P (%) | NA | NL | NA | | 2.08% | | | | 2.40% | | | 1.97% | | | 2.14% |
| P ₂ O ₅ (%) | NA | NL | NA | | nl | | | | nl | | | nl | | | nl |
| Total K (%) | NA | NL | NA | | 0.41% | | | | 0.16% | | | 0.15% | | | 0.20% |
| pH (Std. Units) | NA | NL | NA | | 12.31 | | | | 12.28 | | | 12.43 | | | 11.02 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | 20.60% | | | | 13.50% | | | 33.30% | | | 24.60% |

NL = No limitations, monitoring required NA = Not applicable * = Dry weight basis, unless otherwise stated ** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&I Eastern Laboratories, Inc, Richmond, Virginia

COMMENTS: _____

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted to, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Town of Culpeper
 Source Name: _____
 Biosolids Type (treatment method): Anaerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: quarterly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Anaerobic Digested
 Vector Attraction Reduction Alternative: Anaerobic Digested
 Amount of Biosolids received during monitoring period: 1944 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS* | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | 28.12% | | | | 22.22% | | 23.30% | | | 22.61% | 21.10% | |
| Volatile Solids (%) | NA | NL | NA | 45.53% | | | | 68.68% | | 68.15% | | | 64.48% | 63.85% | |
| Total Arsenic | NA | 41 | 75 | 4 | | | | 3 | | 4 | | | 7 | 7 | |
| Total Cadmium | NA | 39 | 85 | 1 | | | | 1 | | 1 | | | 1 | 1 | |
| Total Copper | NA | 1,500 | 4,300 | 472 | | | | 408 | | 480 | | | 454 | 493 | |
| Total Lead | NA | 300 | 840 | 21 | | | | 17 | | 18 | | | 18 | 24 | |
| Total Mercury | NA | 17 | 57 | 1 | | | | 1.4 | | 0.8 | | | 0.7 | 0.9 | |
| Total Molybdenum | NA | NA | 75 | 12 | | | | 21 | | 16 | | | 14 | 14 | |
| Total Nickel | NA | 420 | 420 | 14 | | | | 15 | | 16 | | | 15 | 16 | |
| Total Selenium | NA | 100 | 100 | 7 | | | | 7 | | 4 | | | 5 | 5 | |
| Total Zinc | NA | 2,800 | 7,500 | 484 | | | | 499 | | 532 | | | 583 | 592 | |
| TKN (%) | NA | NL | NA | 3.81% | | | | 6.53% | | 5.54% | | | 4.95% | 5.97% | |
| Ammonium Nitrogen (%) | NA | NL | NA | 0.87% | | | | 2.56% | | 1.78% | | | 0.79% | 1.81% | |
| Nitrate Nitrogen | NA | NL | NA | 853 | | | | 9.45 | | 9.87 | | | 22.1 | 362 | |
| Total P (%) | NA | NL | NA | 2.40% | | | | 3.48% | | 2.54% | | | 2.78% | 3.00% | |
| P ₂ O ₅ (%) | NA | NL | NA | nt | | | | nt | | nt | | | nt | nt | |
| Total K (%) | NA | NL | NA | 0.13% | | | | 0.21% | | 0.18% | | | 0.19% | 0.18% | |
| pH (Std. Units) | NA | NL | NA | 7.65 | | | | 8.9 | | 8.34 | | | 7.67 | 8.88 | |
| CCE** as CaCO ₃ (%) | NA | NL | NA | <0.01 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc. Richmond, Virginia

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

Sharon Hanks VPA- Reg. Specialist

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Buckingham Water Authority
 Source Name: Dillwyn WWTP
 Biosolids Type (treatment method): Aerobic Digestion
 Monitoring period: Jan - Dec 2011
 Frequency: annual

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Aerobic Digestion
 Vector Attraction Reduction Alternative: Aerobic Digestion
 Amount of Biosolids received during monitoring period: 475 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | | 1.43% | | | | | | | | | |
| Volatile Solids (%) | NA | NL | NA | | | 70.67% | | | | | | | | | |
| Total Arsenic | NA | 41 | 75 | | | 5 | | | | | | | | | |
| Total Cadmium | NA | 39 | 85 | | | 2 | | | | | | | | | |
| Total Copper | NA | 1,500 | 4,300 | | | 277 | | | | | | | | | |
| Total Lead | NA | 300 | 840 | | | 54 | | | | | | | | | |
| Total Mercury | NA | 17 | 57 | | | <0.4 | | | | | | | | | |
| Total Molybdenum | NA | NA | 75 | | | <5 | | | | | | | | | |
| Total Nickel | NA | 420 | 420 | | | 30 | | | | | | | | | |
| Total Selenium | NA | 100 | 100 | | | 4 | | | | | | | | | |
| Total Zinc | NA | 2,800 | 7,300 | | | 609 | | | | | | | | | |
| TKN (%) | NA | NL | NA | | | 7.27% | | | | | | | | | |
| Ammonium Nitrogen (%) | NA | NL | NA | | | 0.63% | | | | | | | | | |
| Nitrate Nitrogen | NA | NL | NA | | | <1.00 | | | | | | | | | |
| Total P (%) | NA | NL | NA | | | 1.71% | | | | | | | | | |
| P ₂ O ₅ (%) | NA | NL | NA | | | nl | | | | | | | | | |
| Total K (%) | NA | NL | NA | | | 0.52% | | | | | | | | | |
| pH (Std. Units) | NA | NL | NA | | | 7.3 | | | | | | | | | |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | | 1.59% | | | | | | | | | |

NL = No limitations, monitoring required NA = Not applicable * = Dry weight basis, unless otherwise stated ** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc. Richmond, Virginia

COMMENTS: _____

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to ensure that a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc.

Signature of Permittee

Robert J. Smith

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: MES Dorsey Run
 Source Name: _____
 Biosolids Type (treatment method): Lime Stabilization
 Monitoring period: Jan - Dec 2011
 Frequency: quarterly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Lime Stabilization
 Vector Attraction Reduction Alternative: Lime Stabilization
 Amount of Biosolids received during monitoring period: 1431.73 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | | 27.29% | | | 30.57% | | | 29.35% | | | 33.96% |
| Volatile Solids (%) | NA | NL | NA | | | 35.67% | | | 35.04% | | | 33.28% | | | 23.11% |
| Total Arsenic | NA | 41 | 75 | | | 6 | | | 6 | | | 5 | | | 3 |
| Total Cadmium | NA | 39 | 85 | | | 1 | | | 1 | | | 1 | | | 1 |
| Total Copper | NA | 1,500 | 4,300 | | | 120 | | | 124 | | | 142 | | | 143 |
| Total Lead | NA | 300 | 840 | | | 9 | | | 7 | | | 14 | | | 10 |
| Total Mercury | NA | 17 | 57 | | | 0.4 | | | 0.4 | | | 0.4 | | | <0.4 |
| Total Molybdenum | NA | NA | 75 | | | <5 | | | <5 | | | <5 | | | <5 |
| Total Nickel | NA | 420 | 420 | | | 14 | | | 12 | | | 18 | | | 13 |
| Total Selenium | NA | 100 | 100 | | | 5 | | | 6 | | | 3 | | | 2 |
| Total Zinc | NA | 2,800 | 7,500 | | | 391 | | | 340 | | | 449 | | | 359 |
| TKN (%) | NA | NL | NA | | | 3.10% | | | 2.83% | | | 2.48% | | | 2.49% |
| Ammonium Nitrogen (%) | NA | NL | NA | | | 0.21% | | | 0.16% | | | 0.16% | | | 0.13% |
| Nitrate Nitrogen | NA | NL | NA | | | 30 | | | 16.4 | | | 49.4 | | | <1.00 |
| Total P (%) | NA | NL | NA | | | 1.30% | | | 1.39% | | | 1.44% | | | 1.10% |
| P ₂ O ₅ (%) | NA | NL | NA | | | nl | | | nl | | | nl | | | nl |
| Total K (%) | NA | NL | NA | | | 0.19% | | | 0.15% | | | 0.14% | | | 0.16% |
| pH (Std. Units) | NA | NL | NA | | | 12.42 | | | 12.18 | | | 12.45 | | | 12.47 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | | 47.50% | | | 48.10% | | | 49.10% | | | 63.30% |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc, Richmond, Virginia

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: FOWSA
 Source Name: _____
 Biosolids Type (treatment method): Aerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: quarterly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00858, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Aerobic Digested
 Vector Attraction Reduction Alternative: Aerobic Digested
 Amount of Biosolids received during monitoring period: 1519.2 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg) ^a | Ceiling Concentration Maximum (mg/kg) ^a | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} | Monthly Average (mg/kg) ^{a,b} |
|-----------------------------------|-------------------------|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | | 19.97% | | | 19.56% | | | | 19.36% | | 16.51% |
| Volatile Solids (%) | NA | NL | NA | | | 68.38% | | | 64.76% | | | | 60.54% | | 62.22% |
| Total Arsenic | NA | 41 | 75 | | | 12 | | | 13 | | | | 17 | | 13 |
| Total Cadmium | NA | 39 | 85 | | | 2 | | | 2 | | | | 2 | | 2 |
| Total Copper | NA | 1,500 | 4,300 | | | 754 | | | 919 | | | | 878 | | 419 |
| Total Lead | NA | 300 | 840 | | | 38 | | | 41 | | | | 56 | | 46 |
| Total Mercury | NA | 17 | 57 | | | <0.4 | | | 0.5 | | | | 1.2 | | 0.6 |
| Total Molybdenum | NA | NA | 75 | | | 8 | | | 8 | | | | 12 | | 9 |
| Total Nickel | NA | 420 | 420 | | | 17 | | | 20 | | | | 20 | | 20 |
| Total Selenium | NA | 100 | 100 | | | 7 | | | 2 | | | | 7 | | 1 |
| Total Zinc | NA | 2,800 | 7,500 | | | 1250 | | | 1430 | | | | 1480 | | 1060 |
| TKN (%) | NA | NL | NA | | | 5.96% | | | 5.32% | | | | 4.68% | | 5.51% |
| Ammonium Nitrogen (%) | NA | NL | NA | | | 1.06% | | | 1.02% | | | | 0.68% | | 1.06% |
| Nitrate Nitrogen | NA | NL | NA | | | 11.5 | | | 7.16 | | | | 7.75 | | 8.48 |
| Total P (%) | NA | NL | NA | | | 2.17% | | | 2.41% | | | | 2.58% | | 2.77% |
| P ₂ O ₅ (%) | NA | NL | NA | | | nt | | | nt | | | | nt | | |
| Total K (%) | NA | NL | NA | | | 0.38% | | | 0.35% | | | | 0.27% | | 0.40% |
| pH (Std. Units) | NA | NL | NA | | | 7.48 | | | 7.72 | | | | 8.12 | | 8.17 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | | 2.87% | | | <0.01 | | | | <0.01 | | 1.05% |

NL = No limitations, monitoring required NA = Not applicable * = Dry weight basis, unless otherwise stated ** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc, Richmond, Virginia

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

Robert J. Smith VPA-Rep. Systems, Inc.

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

| | |
|------------------------------------|------------------|
| Facility Name: | Freedom District |
| Source Name: | |
| Biosolids Type (treatment method): | Lime Stabilized |
| Monitoring period: | Jan - Dec 2011 |
| Frequency: | Quarterly |

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00809, 00814, 03010, 00800
00816, 03003, 00051, 00820, 00809, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826

Pathogen Control Alternative: Lime Stabilized

Vector Attraction Reduction Alternative: Lime Stabilized

Amount of Biosolids received during monitoring period: 2699.02 wet tons

Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS* | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b | Monthly Average (mg/kg)* ^b |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | 28.90% | 27.32% | | | | 31.49% | | | 27.97% | | | 24.82% |
| Volatile Solids (%) | NA | NL | NA | 36.69% | 41.83% | | | | 39.40% | | | 40.57% | | | 54.27% |
| Total Arsenic | NA | 41 | 75 | 2 | <1.0 | | | | 2 | | | 3 | | | 2 |
| Total Cadmium | NA | 39 | 85 | <1.0 | <1.0 | | | | <1.0 | | | <1.0 | | | 1 |
| Total Copper | NA | 1,500 | 4,300 | 196 | 167 | | | | 169 | | | 186 | | | 219 |
| Total Lead | NA | 300 | 840 | 15 | 6 | | | | 8 | | | 9 | | | 6 |
| Total Mercury | NA | 17 | 57 | 0.4 | <0.4 | | | | 0.4 | | | 0.6 | | | 0.9 |
| Total Molybdenum | NA | NA | 75 | <5 | <5 | | | | <5 | | | <5 | | | <5 |
| Total Nickel | NA | 420 | 420 | 7 | 6 | | | | 8 | | | 8 | | | 9 |
| Total Selenium | NA | 100 | 100 | 3 | 3 | | | | 6 | | | 4 | | | 5 |
| Total Zinc | NA | 2,800 | 7,500 | 340 | 345 | | | | 368 | | | 461 | | | 480 |
| TKN (%) | NA | NL | NA | 3.37% | 3.84% | | | | 3.49% | | | 3.15% | | | 4.19% |
| Ammonium Nitrogen (%) | NA | NL | NA | 0.21% | 0.25% | | | | 0.31% | | | 0.28% | | | 0.71% |
| Nitrate Nitrogen | NA | NL | NA | 16.3 | 25.3 | | | | 11.4 | | | 13.2 | | | 14.1 |
| Total P (%) | NA | NL | NA | 1.94% | 2.17% | | | | 1.65% | | | 1.86% | | | 2.31% |
| P ₂ O ₅ (%) | NA | NL | NA | nt | nt | | | | nt | | | nt | | | nt |
| Total K (%) | NA | NL | NA | 0.21% | 0.21% | | | | 0.16% | | | 0.15% | | | 0.25% |
| pH (Std. Units) | NA | NL | NA | 12.42 | 12.45 | | | | 12.31 | | | 12.48 | | | 12.31 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | 43.80% | 42.80% | | | | 40.80% | | | 41.80% | | | 24.90% |

NL = No limitations, monitoring required NA = Not applicable * = Dry weight basis, unless otherwise stated ** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc., Richmond, Virginia

COMMENTS: _____

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee:

Recyc Systems, Inc

Signature of Permittee

Date _____

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Little Falls Run
 Source Name: Little Falls Run
 Biosolids Type (treatment method): Aerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: quarterly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Aerobic Digested
 Vector Attraction Reduction Alternative: Aerobic Digested
 Amount of Biosolids received during monitoring period: 1821.76 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | | | | | 21.04% | 17.90% | 20.89% | | | | 17.05% |
| Volatile Solids (%) | NA | NL | NA | | | | | | 61.50% | 65.12% | 50.43% | | | | 67.14% |
| Total Arsenic | NA | 41 | 75 | | | | | | 6 | 5 | 8 | | | | 5 |
| Total Cadmium | NA | 39 | 85 | | | | | | 2 | 3 | 2 | | | | 2 |
| Total Copper | NA | 1,500 | 4,300 | | | | | | 458 | 568 | 404 | | | | 461 |
| Total Lead | NA | 300 | 840 | | | | | | 20 | 23 | 29 | | | | 22 |
| Total Mercury | NA | 17 | 57 | | | | | | 1.3 | 1.3 | 1.2 | | | | 1.3 |
| Total Molybdenum | NA | NA | 75 | | | | | | 11 | 10 | 10 | | | | 8 |
| Total Nickel | NA | 420 | 420 | | | | | | 33 | 43 | 46 | | | | 25 |
| Total Selenium | NA | 100 | 100 | | | | | | 8 | 8 | 2 | | | | 5 |
| Total Zinc | NA | 2,800 | 7,500 | | | | | | 905 | 1080 | 819 | | | | 737 |
| TKN (%) | NA | NL | NA | | | | | | 5.75% | 6.49% | 5.07% | | | | 5.33% |
| Ammonium Nitrogen (%) | NA | NL | NA | | | | | | 1.00% | 1.07% | 1.60% | | | | 0.95% |
| Nitrate Nitrogen | NA | NL | NA | | | | | | <1.0 | 13.40 | 12.40 | | | | <1.0 |
| Total P (%) | NA | NL | NA | | | | | | 3.29% | 3.45% | 2.89% | | | | 3.15% |
| P ₂ O ₅ (%) | NA | NL | NA | | | | | | nt | nt | nt | | | | nt |
| Total K (%) | NA | NL | NA | | | | | | 0.32% | 0.33% | 0.29% | | | | 0.35% |
| pH (Std. Units) | NA | NL | NA | | | | | | 7.25 | 7.7 | 8.25 | | | | 6.79 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | | | | | <0.01 | <0.01 | 0.09% | | | | <0.01 |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc. Richmond, Virginia

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who compile the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc.

Signature of Permittee

Robert Hanks Vice-Pres. Systems

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: RSA Lake of Woods
 Source Name: Lake of Woods
 Biosolids Type (treatment method): Aerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: annual

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Anaerobic Digested
 Vector Attraction Reduction Alternative: Anaerobic Digested
 Amount of Biosolids received during monitoring period: 828 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | 31.35% | | | | | | | | 29.76% | | | |
| Volatile Solids (%) | NA | NL | NA | 37.59% | | | | | | | | 15.50% | | | |
| Total Arsenic | NA | 41 | 75 | 4 | | | | | | | | 5 | | | |
| Total Cadmium | NA | 39 | 85 | <1 | | | | | | | | <1 | | | |
| Total Copper | NA | 1,500 | 4,300 | 131 | | | | | | | | 133 | | | |
| Total Lead | NA | 300 | 840 | 11 | | | | | | | | 9 | | | |
| Total Mercury | NA | 17 | 57 | <0.4 | | | | | | | | 0.7 | | | |
| Total Molybdenum | NA | NA | 75 | <5 | | | | | | | | <5 | | | |
| Total Nickel | NA | 420 | 420 | 16 | | | | | | | | 22 | | | |
| Total Selenium | NA | 100 | 100 | 1 | | | | | | | | 2 | | | |
| Total Zinc | NA | 2,800 | 7,500 | 345 | | | | | | | | 465 | | | |
| TKN (%) | NA | NL | NA | 3.51% | | | | | | | | 2.63% | | | |
| Ammonium Nitrogen (%) | NA | NL | NA | 0.82% | | | | | | | | 0.52% | | | |
| Nitrate Nitrogen | NA | NL | NA | 10.8 | | | | | | | | 20.8 | | | |
| Total P (%) | NA | NL | NA | 1.15% | | | | | | | | 1.84% | | | |
| P ₂ O ₅ (%) | NA | NL | NA | nt | | | | | | | | nt | | | |
| Total K (%) | NA | NL | NA | 0.34% | | | | | | | | 0.18% | | | |
| pH (Std. Units) | NA | NL | NA | 8.21 | | | | | | | | 8.81 | | | |
| CCE** as CaCO ₃ (%) | NA | NL | NA | 86.00% | | | | | | | | 15.50% | | | |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&I Eastern Laboratories, Inc, Richmond, Virginia

COMMENTS: _____

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: North River WWTP
 Source Name: HRRSA Mount Crawford
 Biosolids Type (treatment method): Anaerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: bi monthly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Anaerobic Digested
 Vector Attraction Reduction Alternative: Anaerobic Digested
 Amount of Biosolids received during monitoring period: 9876.39 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS* | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | August | October | November | December |
| Percent Solids (%) | NA | NL | NA | | 14.34% | | 15.84% | | 18.35% | | 16.78% | 17.44% | | 18.43% | 14.52% |
| Volatile Solids (%) | NA | NL | NA | | 74.46% | | 70.05% | | 64.86% | | 63.39% | 63.08% | | 60.87% | 72.61% |
| Total Arsenic | NA | 41 | 75 | | 3 | | 4 | | 5 | | 4 | 5 | | 5 | 4 |
| Total Cadmium | NA | 39 | 85 | | 2 | | 2 | | 2 | | 2 | 2 | | 2 | 2 |
| Total Copper | NA | 1,500 | 4,300 | | 336 | | 293 | | 256 | | 294 | 297 | | 322 | 325 |
| Total Lead | NA | 300 | 840 | | 36 | | 48 | | 49 | | 42 | 42 | | 45 | 28 |
| Total Mercury | NA | 17 | 57 | | 0.5 | | 0.9 | | 0.9 | | 0.8 | 1.1 | | 0.7 | 0.4 |
| Total Molybdenum | NA | NA | 75 | | 9 | | 8 | | 7 | | 8 | 8 | | 9 | 4 |
| Total Nickel | NA | 420 | 420 | | 23 | | 20 | | 21 | | 19 | 20 | | 22 | 20 |
| Total Selenium | NA | 100 | 100 | | 3 | | 2 | | 7 | | 2 | 1 | | <1.0 | 2 |
| Total Zinc | NA | 2,800 | 7,500 | | 750 | | 790 | | 674 | | 831 | 729 | | 876 | 768 |
| TKN (%) | NA | NL | NA | | 7.60% | | 6.76% | | 5.83% | | 5.80% | 6.02% | | 5.75% | 7.37% |
| Ammonium Nitrogen (%) | NA | NL | NA | | 1.65% | | 1.36% | | 1.14% | | 1.21% | 1.04% | | 1.23% | 1.14% |
| Nitrate Nitrogen | NA | NL | NA | | 11.2 | | 13.3 | | 10.4 | | 10.7 | 14.9 | | 10.9 | 2860 |
| Total P (%) | NA | NL | NA | | 3.42% | | 3.92% | | 3.25% | | 3.36% | 3.43% | | 3.79% | 3.54% |
| P ₂ O ₅ (%) | NA | NL | NA | | nt | | nt | | nt | | nt | nt | | nt | nt |
| Total K (%) | NA | NL | NA | | 0.37% | | 0.32% | | 0.22% | | 0.22% | 0.27% | | 0.26% | 0.32% |
| pH (Std. Units) | NA | NL | NA | | 8.15 | | 8.5 | | 8.52 | | 8.4 | 8.4 | | 8.45 | 6.79 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | 0.45% | | 1.42% | | 0.94% | | <0.01 | <0.01 | | 2.47% | <0.01 |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc, Richmond, Virginia

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Basham Simms WWTP
 Source Name: _____
 Biosolids Type (treatment method): Aerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: bi monthly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Aerobic Digested
 Vector Attraction Reduction Alternative: Aerobic Digested
 Amount of Biosolids received during monitoring period: 686.94 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* | Monthly Average (mg/kg)* |
|-----------------------------------|-------------------------|--------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | 17.01% | 18.47% | 16.98% | | 19.57% | | 26.26% | | 28.10% | 24.02% | 21.49% |
| Volatile Solids (%) | NA | NL | NA | | 71.58% | 71.26% | 69.11% | | 68.04% | | 55.19% | | 56.26% | 61.08% | |
| Total Arsenic | NA | 41 | 75 | | 2 | 2 | 3 | | 2 | | 4 | | 4 | 3 | |
| Total Cadmium | NA | 39 | 85 | | 1 | 1 | 1 | | 1 | | 1 | | 2 | 2 | |
| Total Copper | NA | 1,500 | 4,300 | | 653 | 605 | 676 | | 667 | | 779 | | 909 | 792 | |
| Total Lead | NA | 300 | 840 | | 18 | 14 | 19 | | 24 | | 33 | | 28 | 22 | |
| Total Mercury | NA | 17 | 57 | | 0.4 | 1.5 | 1.4 | | 0.9 | | 1.7 | | 2.1 | 1.5 | |
| Total Molybdenum | NA | NA | 75 | | 6 | 5 | 5 | | 5 | | <5 | | <5 | <5 | |
| Total Nickel | NA | 420 | 420 | | 15 | 13 | 14 | | 15 | | 20 | | 18 | 16 | |
| Total Selenium | NA | 100 | 100 | | 1 | 2 | 3 | | 3 | | 2 | | <1.0 | <1.0 | |
| Total Zinc | NA | 2,800 | 7,500 | | 648 | 603 | 694 | | 674 | | 946 | | 1180 | 934 | |
| TKN (%) | NA | NL | NA | | 7.29% | 6.98% | 7.13% | | 6.85% | | 5.71% | | 5.34% | 5.62% | |
| Ammonium Nitrogen (%) | NA | NL | NA | | 0.90% | 0.98% | 1.05% | | 0.88% | | 1.30% | | 1.24% | 0.52% | |
| Nitrate Nitrogen | NA | NL | NA | | <1 | 16.8 | 7.07 | | 11.2 | | <1 | | 8.9 | 88.7 | |
| Total P (%) | NA | NL | NA | | 3.21% | 2.87% | 3.25% | | 3.05% | | 3.34% | | 3.78% | 3.28% | |
| P ₂ O ₅ (%) | NA | NL | NA | | nl | nl | nl | | nl | | nl | | nl | nl | |
| Total K (%) | NA | NL | NA | | 0.38% | 0.28% | 0.28% | | 0.23% | | 0.15% | | 0.12% | 0.14% | |
| pH (Std. Units) | NA | NL | NA | | 7.81 | 7.93 | 7.95 | | 8.33 | | 8.38 | | 8.3 | 8.62 | |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | 2.28% | <0.01 | 0.52% | | 0.81% | | 1.29% | | 3.40% | <1.01 | |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc. Richmond, Virginia

COMMENTS:

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Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Richmond WWTP
 Source Name: _____
 Biosolids Type (treatment method): Aerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: monthly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Aerobic Digested
 Vector Attraction Reduction Alternative: Aerobic Digested
 Amount of Biosolids received during monitoring period: 25002.5 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | February | March | April | May | June | July | August | August | September | October | November | December | |
| Percent Solids (%) | NA | NL | NA | 25.08% | 35.21% | 26.79% | 25.45% | 29.16% | 25.64% | 27.37% | 35.25% | 28.45% | 23.96% | 24.02% | 23.49% | 27.49% |
| Volatile Solids (%) | NA | NL | NA | 56.13% | 39.27% | 53.93% | 52.87% | 51.97% | 46.85% | 51.01% | 52.16% | 53.08% | 52.65% | 54.77% | 54.86% | |
| Total Arsenic | NA | 41 | 75 | 11 | 9 | 12 | 12 | 11 | 11 | 12 | 11 | 12 | 13 | 13 | 12 | |
| Total Cadmium | NA | 39 | 85 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |
| Total Copper | NA | 1,500 | 4,300 | 471 | 317 | 461 | 439 | 483 | 439 | 449 | 509 | 483 | 452 | 439 | 404 | |
| Total Lead | NA | 300 | 840 | 83 | 58 | 89 | 83 | 80 | 91 | 86 | 94 | 86 | 97 | 83 | 81 | |
| Total Mercury | NA | 17 | 57 | 1.2 | <0.4 | 1.1 | 0.7 | 1.1 | 0.9 | 1.2 | 2.4 | 1 | 1 | 1.6 | 0.4 | |
| Total Molybdenum | NA | NA | 75 | 18 | 10 | 15 | 11 | 13 | 17 | 18 | 22 | 18 | 17 | 15 | 12 | |
| Total Nickel | NA | 420 | 420 | 26 | 23 | 32 | 27 | 25 | 24 | 22 | 24 | 23 | 24 | 23 | 26 | |
| Total Selenium | NA | 100 | 100 | 2 | 2 | 1 | <1.0 | <1.0 | <1.0 | 4 | <1.0 | 2 | 3 | 1 | 2 | |
| Total Zinc | NA | 2,800 | 7,500 | 1260 | 860 | 1210 | 1090 | 971 | 1020 | 993 | 1150 | 1170 | 1090 | 1060 | 1130 | |
| TKN (%) | NA | NL | NA | 4.98% | 3.10% | 5.04% | 4.20% | 4.53% | 3.94% | 3.98% | 5.45% | 4.43% | 4.63% | 4.54% | 4.81% | |
| Ammonium Nitrogen (%) | NA | NL | NA | 1.25% | 0.75% | 1.27% | 1.09% | 0.85% | 1.21% | 1.14% | 1.09% | 0.84% | 0.83% | 0.73% | 1.07% | |
| Nitrate Nitrogen | NA | NL | NA | <1.0 | 7.1 | 12.3 | 6.28 | 8.57 | 7.8 | <1 | 8.78 | 10.2 | 9.8 | 14.2 | 11.5 | |
| Total P (%) | NA | NL | NA | 2.78% | 1.73% | 2.54% | 2.67% | 2.35% | 2.17% | 2.32% | 2.45% | 2.36% | 2.53% | 2.62% | 2.51% | |
| P ₂ O ₅ (%) | NA | NL | NA | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | nt | |
| Total K (%) | NA | NL | NA | 0.19% | 0.19% | 0.28% | 0.21% | 0.19% | 0.18% | 0.17% | 0.20% | 0.18% | 0.20% | 19.00% | 0.30% | |
| pH (Std. Units) | NA | NL | NA | 8.41 | 8.39 | 8.43 | 8.53 | 8.31 | 8.29 | 8.63 | 7.81 | 8.43 | 8.23 | 8.17 | 8.51 | |
| CCE** as CaCO ₃ (%) | NA | NL | NA | 0.78% | 0.24% | 1.20% | <1.0 | <1.0 | <1.0 | <0.01 | <0.01 | 2.25% | 1.05% | 1.43% | 0.20% | |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc., Richmond, Virginia

COMMENTS:

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Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: SCWWA
 Source Name: _____
 Biosolids Type (treatment method): Lime Stabilization
 Monitoring period: Jan - Dec 2011
 Frequency: bi monthly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00800, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Lime Stabilization
 Vector Attraction Reduction Alternative: Lime Stabilization
 Amount of Biosolids received during monitoring period: 13434.4 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS* | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a | Monthly Average (mg/kg)* ^a |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | 29.86% | | 31.30% | | 33.18% | | 33.72% | | 27.87% | | 26.99% |
| Volatile Solids (%) | NA | NL | NA | | 66.60% | | 54.32% | | 54.60% | | 47.03% | | 55.00% | | 60.16% |
| Total Arsenic | NA | 41 | 75 | | 2 | | 3 | | 3 | | 4 | | 2 | | 3 |
| Total Cadmium | NA | 39 | 85 | | 1 | | 1 | | 1 | | <1 | | 1 | | 1 |
| Total Copper | NA | 1,500 | 4,300 | | 162 | | 187 | | 185 | | 186 | | 176 | | 135 |
| Total Lead | NA | 300 | 840 | | 14 | | 43 | | 23 | | 22 | | 24 | | 13 |
| Total Mercury | NA | 17 | 57 | | <0.4 | | <0.4 | | <0.4 | | 0.6 | | 0.5 | | <0.4 |
| Total Molybdenum | NA | NA | 75 | | 5 | | 5 | | 6 | | 6 | | 6 | | <5 |
| Total Nickel | NA | 420 | 420 | | 7 | | 13 | | 9 | | 9 | | 10 | | 9 |
| Total Selenium | NA | 100 | 100 | | 3 | | 3 | | <1 | | 3 | | 1 | | 2 |
| Total Zinc | NA | 7,800 | 7,500 | | 269 | | 365 | | 340 | | 345 | | 363 | | 253 |
| TKN (%) | NA | NL | NA | | 4.12% | | 3.58% | | 3.59% | | 3.14% | | 3.73% | | 4.41% |
| Ammonium Nitrogen (%) | NA | NL | NA | | 0.16% | | 0.19% | | 0.19% | | 0.17% | | 0.21% | | 0.15% |
| Nitrate Nitrogen | NA | NL | NA | | <1.0 | | 15.3 | | 19 | | 18.4 | | 15.4 | | 15.9 |
| Total P (%) | NA | NL | NA | | 1.55% | | 1.19% | | 1.42% | | 1.40% | | 1.25% | | 1.47% |
| P ₂ O ₅ (%) | NA | NL | NA | | nt | | nt | | nt | | nt | | nt | | nt |
| Total K (%) | NA | NL | NA | | 0.31% | | 0.23% | | 0.18% | | 0.14% | | 0.16% | | 0.26% |
| pH (Std. Units) | NA | NL | NA | | 12.31 | | 12.29 | | 12.36 | | 12.4 | | 12.42 | | 12.35 |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | 20.40% | | 20.40% | | 23.50% | | 35.90% | | 25.20% | | 25.10% |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc., Richmond, Virginia

COMMENTS:

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Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

Virginia Pollution Abatement Biosolids Monitoring Report

Facility Name: Town of Warrenton
 Source Name: Town of Warrenton
 Biosolids Type (treatment method): Anaerobic Digested
 Monitoring period: Jan - Dec 2011
 Frequency: quarterly

VPA Permit #: 01574, 00811, 00056, 01572, 00057, 00817, 00804, 00054, 01582, 01577, 00801, 00805, 00814, 03010, 00600, 00816, 03003, 00061, 00820, 00060, 00809, 00821, 01579, 01078, 00058, 00818, 01573, 00823, 00826
 Pathogen Control Alternative: Anaerobic Digested
 Vector Attraction Reduction Alternative: Anaerobic Digested
 Amount of Biosolids received during monitoring period: 1968 wet tons
 Sample Type: Grab

| BIOSOLIDS CHARACTERISTICS * | Monthly Maximum (mg/kg) | Monthly Average (mg/kg)* | Ceiling Concentration Maximum (mg/kg)* | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** | Monthly Average (mg/kg)** |
|-----------------------------------|-------------------------|--------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | Reported | Monitoring Limits | Monitoring Limits | January | February | March | April | May | June | July | August | September | October | November | December |
| Percent Solids (%) | NA | NL | NA | | | | | 14.62% | | | 14.23% | | 14.65% | 14.55% | |
| Volatile Solids (%) | NA | NL | NA | | | | | 59.81% | | | 55.92% | | 59.59% | 58.09% | |
| Total Arsenic | NA | 41 | 75 | | | | | 3 | | | 3 | | 5 | 4 | |
| Total Cadmium | NA | 39 | 85 | | | | | 1 | | | 1 | | <1.0 | 1 | |
| Total Copper | NA | 1,500 | 4,300 | | | | | 312 | | | 333 | | 403 | 379 | |
| Total Lead | NA | 300 | 840 | | | | | 11 | | | 10 | | 11 | 13 | |
| Total Mercury | NA | 17 | 57 | | | | | 1.6 | | | 1.4 | | 1 | 1.6 | |
| Total Molybdenum | NA | NA | 75 | | | | | 6 | | | 10 | | 9 | 9 | |
| Total Nickel | NA | 420 | 420 | | | | | 13 | | | 12 | | 12 | 13 | |
| Total Selenium | NA | 100 | 100 | | | | | 5 | | | 5 | | 6 | 4 | |
| Total Zinc | NA | 2,800 | 7,500 | | | | | 538 | | | 560 | | 587 | 521 | |
| TKN (%) | NA | NL | NA | | | | | 4.33% | | | 3.68% | | 3.86% | 5.88% | |
| Ammonium Nitrogen (%) | NA | NL | NA | | | | | 0.83% | | | 1.11% | | 0.30% | 0.62% | |
| Nitrate Nitrogen | NA | NL | NA | | | | | 3.5 | | | 299 | | 1060 | 173 | |
| Total P (%) | NA | NL | NA | | | | | 3.54% | | | 3.02% | | 3.25% | 3.17% | |
| P ₂ O ₅ (%) | NA | NL | NA | | | | | nl | | | nl | | nl | nl | |
| Total K (%) | NA | NL | NA | | | | | 0.14% | | | 0.08% | | 0.09% | 0.11% | |
| pH (Std. Units) | NA | NL | NA | | | | | 8.12 | | | 8.38 | | 6.95 | 8.03 | |
| CCE** as CaCO ₃ (%) | NA | NL | NA | | | | | <0.01 | | | <0.01 | | <0.01 | <0.01 | |

NL = No limitations, monitoring required

NA = Not applicable

* = Dry weight basis, unless otherwise stated

** = CCE is Calcium Carbonate Equivalence

Source of data reported: A&L Eastern Laboratories, Inc, Richmond, Virginia

COMMENTS:

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Printed Name of Permittee

Recyc Systems, Inc

Signature of Permittee

[Signature]

Date

1/27/2012

**SUMMARY OF BIOSOLIDS CONTRACTS
or
BIOSOLIDS USE AGREEMENTS
2011**

Blue Plains, WSSC

Blue Plains, DCWASA

City of Bowie

City of Richmond

Town of Warrenton

Town of Culpeper

Town of Purcellville -- Basham Simms

Fauquier Water & Sanitation Authority

South Central Waste Water Authority

Buckingham County Authority -- Dillwyn

Rapidan Service Authority -- Lake of the Woods

Harrisonburg Rockingham Regional Service Authority -- North River

MES -- Freedom District

MES -- Maryland Correctional Institute

MES -- Dorsey Run

City of Philadelphia

Stafford County -- Little Falls Run

Stafford County -- Able Lake

Synagro -- Fauquier Lagoon

SUMMARY OF APPROVED BIOSOLIDS STORAGE FACILITIES 2011

Recyc Systems has no Routine Storage Facilities.

Recyc Systems utilized modified temporary storage according to a VDHBUR variance. Biosolids were temporarily stored in concrete bunkers in Orange County at the Richard P Harris Site, in Dinwiddie County at the Robert G Ragsdale Site and at the L M Harrison Site and in King & Queen County at the Wil Mar Farm.

Recyc Systems maintains arrangements for the disposal of biosolids with BFI at landfills located at the Little Plymouth Landfill in King & Queen and the Old Dominion Landfill in Henrico County.

SUMMARY OF LAND APPLICATION SITES UTILIZED IN 2011

- Land application sites completed in 2011,
- Land application sites partially completed in 2011,

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|------------------|---------------------|
| BUR 04 | FQNCB-01 | 43.4 | 06/30/11 | yes | Blue Plains | 3.309 |
| BUR 04 | FQNCB-01 | 43.4 | 06/30/11 | yes | Dorsey Run | 0.158 |
| BUR 04 | FQNCB-01 | 43.4 | 06/30/11 | yes | MCI | 1.340 |
| BUR 04 | FQNCB-05 | 37.0 | 06/30/11 | yes | Blue Plains | 2.071 |
| BUR 04 | FQNCB-05 | 37.0 | 06/30/11 | yes | Bowie | 0.151 |
| BUR 04 | FQNCB-06 | 17.4 | 06/30/11 | yes | Blue Plains | 3.432 |
| BUR 04 | FQNCB-06 | 17.4 | 06/30/11 | yes | Freedom District | 0.739 |
| BUR 04 | FQNCB-07 | 19.5 | 06/30/11 | yes | Blue Plains | 2.059 |
| BUR 04 | FQNCB-08 | 10.2 | 06/30/11 | yes | Blue Plains | 2.361 |
| BUR 04 | FQNCB-09 | 12.5 | 06/30/11 | yes | Blue Plains | 2.547 |
| BUR 04 | FQNCB-09 | 12.5 | 06/30/11 | yes | Bowie | 0.481 |
| BUR 04 | FQNCB-09 | 12.5 | 06/30/11 | yes | MCI | 0.489 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|---------------------|---------------------|
| BUR 05 | HAHJS-02 | 25.0 | 07/31/11 | yes | Richmond | 2.832 |
| BUR 05 | HAHJS-12 | 26.8 | 07/31/11 | yes | Richmond | 2.902 |
| BUR 05 | HAWPG-02 | 19.8 | 07/31/11 | yes | Richmond | 3.232 |
| BUR 05 | HAECW-04 | 20.6 | 04/30/11 | yes | Richmond | 4.019 |
| BUR 05 | HASGF-03 | 42.6 | 04/30/11 | yes | Blue Plains | 5.282 |
| BUR 05 | HASGF-04 | 42.5 | 04/30/11 | yes | Blue Plains | 5.632 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|------------------|---------------------|
| BUR 06 | ORERN-02 | 21.0 | 05/31/11 | yes | Blue Plains | 4.480 |
| BUR 06 | ORERN-04 | 18.4 | 05/31/11 | yes | Blue Plains | 4.333 |
| BUR 06 | ORERN-05 | 11.4 | 05/31/11 | yes | Blue Plains | 4.111 |
| BUR 06 | ORERN-06 | 5.3 | 05/31/11 | yes | Dorsey Run | 1.286 |
| BUR 06 | ORERN-06 | 5.3 | 05/31/11 | yes | Freedom District | 4.464 |
| BUR 06 | ORKRH-01 | 34.6 | 01/31/11 | yes | North River | 0.900 |
| BUR 06 | ORKRH-02 | 29.3 | 01/31/11 | yes | Culpeper | 0.694 |
| BUR 06 | ORKRH-02 | 29.3 | 01/31/11 | yes | FQWSA | 0.362 |
| BUR 06 | ORKRH-02 | 29.3 | 01/31/11 | yes | North River | 1.062 |
| BUR 06 | ORTLH-01 | 23.9 | 12/31/11 | yes | Culpeper | 2.129 |
| BUR 06 | ORTLH-02 | 24.2 | 12/31/11 | yes | Culpeper | 0.701 |
| BUR 06 | ORTLH-03 | 20.0 | 11/31/11 | yes | Blue Plains | 3.877 |
| BUR 06 | ORTLH-04 | 13.8 | 12/31/11 | yes | Blue Plains | 3.900 |
| BUR 06 | ORTLH-05 | 8.0 | 11/31/11 | yes | Blue Plains | 0.991 |
| BUR 06 | ORTLH-05 | 8.0 | 12/31/11 | yes | Blue Plains | 2.865 |
| BUR 06 | ORTLH-06 | 20.0 | 12/31/11 | yes | Culpeper | 0.848 |
| BUR 06 | ORTLH-06 | 20.0 | 12/31/11 | yes | MCI | 2.630 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|------------------|---------------------|
| BUR 69 | CUSCL-05 | 35.3 | 02/28/11 | yes | Blue Plains | 3.312 |
| BUR 69 | CUSCL-05 | 35.3 | 02/28/11 | yes | Bowie | 0.460 |
| BUR 69 | CUSCL-05 | 35.3 | 02/28/11 | yes | Freedom District | 0.379 |

| Permit No | Field Desingation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|-------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| BUR104 | NWAGW-04 | 17.2 | 01/31/11 | yes | Richmond | 0.750 |
| BUR104 | NWBTC-01 | 67.1 | 05/31/11 | yes | SCWWA | 3.797 |
| BUR104 | NWDEH-01 | 19.1 | 01/31/11 | yes | SCWWA | 3.164 |
| BUR104 | NWDEH-02 | 11.4 | 08/31/11 | yes | Richmond | 3.091 |
| BUR104 | NWDEH-03 | 15.1 | 08/31/11 | yes | SCWWA | 3.699 |
| BUR104 | NWDEH-04 | 16.4 | 08/31/11 | yes | SCWWA | 3.967 |
| BUR104 | NWDEH-05 | 14.6 | 08/31/11 | yes | SCWWA | 3.919 |
| BUR104 | NWDEH-06 | 13.2 | 01/31/11 | yes | SCWWA | 3.659 |
| BUR104 | NWDEH-09 | 19.4 | 08/31/11 | yes | Richmond | 2.545 |
| BUR104 | NWDEH-10 | 6.3 | 08/31/11 | yes | Richmond | 2.400 |
| BUR104 | NWDEH-12 | 19.1 | 08/31/11 | yes | SCWWA | 4.133 |
| BUR104 | NWDRF-04 | 17.2 | 08/31/11 | yes | SCWWA | 4.307 |
| BUR104 | NWDRF-06 | 16.5 | 01/31/11 | yes | SCWWA | 3.791 |
| BUR104 | NWDRF-07 | 8.7 | 06/30/11 | yes | Richmond | 4.067 |
| BUR104 | NWDRF-08 | 14.0 | 06/30/11 | yes | Richmond | 2.988 |
| BUR104 | NWDRF-10 | 18.6 | 06/30/11 | yes | Richmond | 3.326 |
| BUR104 | NWFCE-01 | 53.2 | 01/31/11 | yes | Blue Plains | 3.417 |
| BUR104 | NWFCE-01 | 53.2 | 01/31/11 | yes | SCWWA | 0.779 |
| BUR104 | NWFCE-09 | 34.7 | 01/31/11 | yes | Blue Plains | 0.873 |
| BUR104 | NWFCE-09 | 34.7 | 01/31/11 | yes | SCWWA | 2.421 |
| BUR104 | NWJAW-06 | 14.7 | 02/28/11 | yes | Richmond | 3.292 |
| BUR104 | NWJAW-09 | 40.2 | 01/31/11 | yes | Richmond | 3.412 |
| BUR104 | NWJAW-11 | 41.8 | 02/28/11 | yes | Richmond | 0.156 |
| BUR104 | NWNMB-04 | 16.3 | 01/31/11 | yes | Blue Plains | 4.647 |
| BUR104 | NWNMB-05 | 20.1 | 01/31/11 | yes | Blue Plains | 1.131 |
| BUR104 | NWNMB-05 | 20.1 | 01/31/11 | yes | SCWWA | 2.658 |
| BUR104 | NWNMB-06 | 19.3 | 01/31/11 | yes | Blue Plains | 0.785 |
| BUR104 | NWNMB-06 | 19.3 | 01/31/11 | yes | SCWWA | 3.189 |
| BUR104 | NWRCD-06 | 14.5 | 02/28/11 | yes | Blue Plains | 5.104 |
| BUR104 | NWRCD-07 | 10.2 | 02/28/11 | yes | Blue Plains | 3.595 |
| BUR104 | NWSFS-07 | 4.5 | 01/31/11 | yes | Blue Plains | 3.366 |
| BUR104 | NWSFS-08 | 21.6 | 01/31/11 | yes | Blue Plains | 0.351 |
| BUR104 | NWSFS-08 | 21.6 | 01/31/11 | yes | SCWWA | 3.933 |
| BUR104 | NWSFS-09 | 7.0 | 01/31/11 | yes | SCWWA | 2.820 |
| BUR104 | NWSFS-10 | 33.0 | 01/31/11 | yes | Blue Plains | 4.361 |
| BUR104 | NWWEB-01 | 13.5 | 05/31/11 | yes | SCWWA | 4.629 |
| BUR104 | NWWEB-02 | 13.5 | 05/31/11 | yes | SCWWA | 4.629 |
| BUR104 | NWWEB-03 | 12.5 | 05/31/11 | yes | Richmond | 3.881 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|---------------------|---------------------|
| BUR 116 | MADCB-03 | 11.1 | 06/30/11 | yes | Blue Plains | 4.485 |
| BUR 116 | MADCB-04 | 21.8 | 06/30/11 | yes | Blue Plains | 4.695 |
| BUR 116 | MACHE-01 | 18.0 | 02/28/11 | yes | Blue Plains | 4.792 |
| BUR 116 | MACHE-02 | 10.6 | 02/28/11 | yes | North River | 2.530 |
| BUR 116 | MACHE-03 | 5.0 | 02/28/11 | yes | North River | 2.530 |
| BUR 116 | MACHE-06 | 10.7 | 02/28/11 | yes | North River | 2.529 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| BUR 120 | BRCVM-06 | 15.5 | 10/31/11 | yes | Blue Plains | 1.521 |
| BUR 120 | BRCVM-06 | 15.5 | 10/31/11 | yes | SCWWA | 1.921 |
| BUR 120 | BRCVM-15 | 8.7 | 10/31/11 | yes | Blue Plains | 2.710 |
| BUR 120 | BRFTB-02 | 16.8 | 10/31/11 | yes | SCWWA | 3.876 |
| BUR 120 | BRGWS-01 | 16.8 | 11/31/11 | yes | Blue Plains | 3.616 |
| BUR 120 | BRGWS-01 | 16.8 | 11/31/11 | yes | SCWWA | 0.470 |
| BUR 120 | BRGWS-02 | 8.3 | 11/31/11 | yes | Blue Plains | 2.745 |
| BUR 120 | BRGWS-02 | 8.3 | 11/31/11 | yes | SCWWA | 2.013 |
| BUR 120 | BRHDR-01 | 7.0 | 05/31/11 | yes | Blue Plains | 4.423 |
| BUR 120 | BRHDR-02 | 15.2 | 05/31/11 | yes | Blue Plains | 4.073 |
| BUR 120 | BRHDR-03 | 22.4 | 05/31/11 | yes | SCWWA | 3.595 |
| BUR 120 | BRJXH-01 | 11.0 | 11/31/11 | yes | Blue Plains | 2.071 |
| BUR 120 | BRJXH-01 | 11.0 | 11/31/11 | yes | SCWWA | 1.451 |
| BUR 120 | BRLPB-01 | 16.0 | 09/30/11 | yes | Blue Plains | 1.452 |
| BUR 120 | BRLPB-01 | 16.0 | 09/30/11 | yes | SCWWA | 0.769 |
| BUR 120 | BRLPB-02 | 17.0 | 09/30/11 | yes | Blue Plains | 2.268 |
| BUR 120 | BRLPB-02 | 17.0 | 09/30/11 | yes | SCWWA | 1.240 |
| BUR 120 | BRLPB-03 | 13.1 | 09/30/11 | yes | Blue Plains | 3.528 |
| BUR 120 | BRLPB-04 | 32.0 | 09/30/11 | yes | Blue Plains | 3.811 |
| BUR 120 | BRLPB-05 | 10.2 | 09/30/11 | yes | Blue Plains | 3.840 |
| BUR 120 | BRLPB-06 | 23.3 | 10/31/11 | yes | Blue Plains | 0.675 |
| BUR 120 | BRLPB-06 | 23.3 | 10/31/11 | yes | SCWWA | 2.683 |
| BUR 120 | BRLPB-07 | 11.4 | 10/31/11 | yes | SCWWA | 3.444 |
| BUR 120 | BRMWE-03 | 13.2 | 05/31/11 | yes | Blue Plains | 4.532 |
| BUR 120 | BRNAC-01 | 3.0 | 07/31/11 | yes | SCWWA | 2.850 |
| BUR 120 | BRNAC-03 | 5.6 | 07/31/11 | yes | SCWWA | 1.325 |
| BUR 120 | BRNAC-09 | 9.8 | 06/30/11 | yes | SCWWA | 2.871 |
| BUR 120 | BRNAC-13 | 49.0 | 07/31/11 | yes | SCWWA | 2.116 |
| BUR 120 | BRNAC-15 | 18.4 | 08/31/11 | yes | Blue Plains | 4.271 |
| BUR 120 | BRNAC-16 | 10.0 | 07/31/11 | yes | SCWWA | 4.491 |
| BUR 120 | BRNAC-17 | 14.0 | 08/31/11 | yes | Blue Plains | 4.459 |
| BUR 120 | BRNAC-18 | 8.0 | 08/31/11 | yes | Blue Plains | 2.914 |
| BUR 120 | BRNAC-19 | 10.4 | 07/31/11 | yes | SCWWA | 4.361 |
| BUR 120 | BRNVS-01 | 16.4 | 09/30/11 | yes | SCWWA | 4.040 |
| BUR 120 | BRSDH-01 | 11.3 | 10/31/11 | yes | Blue Plains | 4.173 |
| BUR 120 | BRSDH-02 | 9.0 | 10/31/11 | yes | Blue Plains | 1.674 |
| BUR 120 | BRSDH-02 | 9.0 | 10/31/11 | yes | SCWWA | 1.936 |
| BUR 120 | BRTFI-02 | 8.5 | 09/30/11 | yes | Blue Plains | 3.756 |
| BUR 120 | BRTFI-03 | 10.4 | 09/30/11 | yes | Blue Plains | 3.678 |
| BUR 120 | BRTFI-05 | 22.0 | 09/30/11 | yes | Blue Plains | 1.387 |
| BUR 120 | BRTFI-05 | 22.0 | 09/30/11 | yes | SCWWA | 2.302 |
| BUR 120 | BRTFI-06 | 29.2 | 09/30/11 | yes | Blue Plains | 3.937 |
| BUR 120 | BRTLb-01 | 11.0 | 11/31/11 | yes | SCWWA | 4.029 |
| BUR 120 | BRTLb-03 | 37.5 | 11/31/11 | yes | Blue Plains | 0.618 |
| BUR 120 | BRTLb-03 | 37.5 | 11/31/11 | yes | SCWWA | 3.190 |
| BUR 120 | BRTLb-04 | 27.1 | 01/31/11 | yes | Blue Plains | 4.193 |
| BUR 120 | BRWCT-04 | 23.0 | 10/31/11 | yes | Blue Plains | 2.948 |
| BUR 120 | BRWCT-04 | 23.0 | 10/31/11 | yes | SCWWA | 0.927 |
| BUR 120 | BRWCT-05 | 7.5 | 10/31/11 | yes | Blue Plains | 3.052 |
| BUR 120 | BRWCT-06 | 25.0 | 10/31/11 | yes | Blue Plains | 3.917 |
| BUR 120 | BRWCT-08 | 20.5 | 10/31/11 | yes | Blue Plains | 3.711 |
| BUR 120 | BRWCT-09 | 27.0 | 10/31/11 | yes | Blue Plains | 3.408 |
| BUR 120 | BRWCT-12 | 7.7 | 09/30/11 | yes | Blue Plains | 1.969 |
| BUR 120 | BRWCT-13 | 16.1 | 09/30/11 | yes | Blue Plains | 4.709 |
| BUR 120 | BRWCT-14 | 24.1 | 09/30/11 | yes | Blue Plains | 3.775 |
| BUR 120 | BRWCT-14 | 24.1 | 09/30/11 | yes | SCWWA | 0.938 |
| BUR 120 | BRWCT-15 | 15.2 | 09/30/11 | yes | Blue Plains | 3.990 |
| BUR 120 | BRWTW-05 | 26.9 | 10/31/11 | yes | Blue Plains | 3.681 |
| BUR 120 | BRWTW-06 | 12.9 | 09/30/11 | yes | Blue Plains | 2.382 |
| BUR 120 | BRWTW-07 | 9.9 | 09/30/11 | yes | Blue Plains | 3.908 |
| BUR 120 | BRWTW-08 | 22.0 | 09/30/11 | yes | Blue Plains | 3.861 |
| BUR 120 | BRWTW-09 | 15.2 | 09/30/11 | yes | Blue Plains | 3.558 |
| BUR 120 | BRWTW-10 | 5.1 | 09/30/11 | yes | Blue Plains | 3.020 |
| BUR 120 | BRWTW-11 | 5.1 | 09/30/11 | yes | Blue Plains | 3.039 |

| Permit No | Field Desingation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|-------------------|-----------------------|----------------|-----------|---------------------|---------------------|
| BUR 135 | SXVWC-02 | 18.0 | 06/30/11 | yes | Richmond | 3.092 |
| BUR 135 | SXVWC-03 | 19.2 | 06/30/11 | yes | Richmond | 2.561 |
| BUR 135 | SXVWC-04 | 18.5 | 06/30/11 | yes | Richmond | 3.072 |
| BUR 135 | SXVWC-06 | 17.5 | 06/30/11 | yes | Richmond | 2.864 |
| BUR 135 | SXVWC-06-A | 4.3 | 06/30/11 | yes | SCWWA | 1.674 |
| BUR 135 | SXVWC-07 | 13.0 | 06/30/11 | yes | Blue Plains | 3.060 |
| BUR 135 | SXVWC-07 | 13.0 | 06/30/11 | yes | SCWWA | 1.677 |
| BUR 135 | SXVWC-07-A | 20.2 | 06/30/11 | yes | Blue Plains | 4.712 |
| BUR 135 | SXVWC-15 | 3.5 | 06/30/11 | yes | SCWWA | 2.006 |
| BUR 135 | SXCLT-01 | 14.6 | 04/30/11 | yes | Blue Plains | 2.611 |
| BUR 135 | SXMMH-06 | 46.7 | 04/30/11 | yes | Blue Plains | 4.953 |
| BUR 135 | SXMMH-08 | 2.7 | 04/30/11 | yes | Blue Plains | 5.648 |
| BUR 135 | SXMMH-10 | 17.6 | 04/30/11 | yes | Blue Plains | 4.332 |
| BUR 135 | SXMMH-11 | 24.4 | 04/30/11 | yes | Blue Plains | 5.000 |
| BUR 135 | SXREN-01 | 55.0 | 04/30/11 | yes | Blue Plains | 1.802 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|---------------------|---------------------|
| VPA00054 | FQEGW-01 | 14.6 | 06/30/11 | yes | Blue Plains | 2.736 |
| VPA00054 | FQEGW-01 | 14.6 | 06/30/11 | yes | Bowie | 1.153 |
| VPA00054 | FQEGW-02 | 4.0 | 06/30/11 | yes | Blue Plains | 3.946 |
| VPA00054 | FQKGS-01 | 13.8 | 06/30/11 | yes | Blue Plains | 2.828 |
| VPA00054 | FQKGS-02 | 5.6 | 06/30/11 | yes | Blue Plains | 2.831 |
| VPA00054 | FQKGS-03 | 23.2 | 06/30/11 | yes | Blue Plains | 3.436 |
| VPA00054 | FQKGS-03 | 23.2 | 06/30/11 | yes | Bowie | 0.240 |
| VPA00054 | FQKGS-03 | 23.2 | 06/30/11 | yes | Dorsey Run | 0.235 |
| VPA00054 | FQKGS-04 | 21.6 | 06/30/11 | yes | Blue Plains | 1.860 |
| VPA00054 | FQKGS-04 | 21.6 | 06/30/11 | yes | FQWSA | 0.233 |
| VPA00054 | FQKGS-04 | 21.6 | 06/30/11 | yes | MCI | 0.535 |
| VPA00054 | FQKGS-06 | 17.2 | 06/30/11 | yes | Blue Plains | 2.748 |
| VPA00054 | FQDJJ-01 | 4.3 | 08/31/11 | yes | Blue Plains | 3.630 |
| VPA00054 | FQDJJ-03 | 13.0 | 08/31/11 | yes | Blue Plains | 4.177 |

| Permit No | Field Desingation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|------------------|---------------------|
| VPA00056 | CRBAT-07 | 13.5 | 03/31/11 | yes | Blue Plains | 3.498 |
| VPA00056 | CRBAT-07 | 29.2 | 04/30/11 | yes | Blue Plains | 1.588 |
| VPA00056 | CRBAT-12 | 56.0 | 04/30/11 | yes | Richmond | 2.937 |
| VPA00056 | CRBAT-13 | 15.6 | 04/30/11 | yes | Blue Plains | 3.899 |
| VPA00056 | CRBAT-14 | 11.0 | 04/30/11 | yes | Blue Plains | 4.247 |
| VPA00056 | CRBAT-15 | 18.1 | 04/30/11 | yes | Blue Plains | 4.289 |
| VPA00056 | CRBAT-16 | 21.2 | 04/30/11 | yes | Richmond | 2.768 |
| VPA00056 | CRBAT-17 | 13.5 | 03/31/11 | yes | Richmond | 3.584 |
| VPA00056 | CRBAT-21 | 6.7 | 04/30/11 | yes | Blue Plains | 2.340 |
| VPA00056 | CRBAT-23 | 11.5 | 04/30/11 | yes | Richmond | 3.350 |
| VPA00056 | CRCAC-05 | 38.5 | 01/31/11 | yes | Blue Plains | 3.362 |
| VPA00056 | CRCDU-04 | 28.6 | 01/31/11 | yes | Blue Plains | 3.935 |
| VPA00056 | CRCDU-04 | 28.6 | 01/31/11 | yes | Freedom District | 0.433 |
| VPA00056 | CRCDU-05 | 23.7 | 01/31/11 | yes | Blue Plains | 3.369 |
| VPA00056 | CRCDU-25 | 57.6 | 03/31/11 | yes | Richmond | 3.285 |
| VPA00056 | CRCDU-26 | 4.5 | 01/31/11 | yes | Blue Plains | 3.705 |
| VPA00056 | CRDRC-05 | 15.2 | 01/31/11 | yes | Blue Plains | 3.180 |
| VPA00056 | CRDRC-06 | 25.3 | 01/31/11 | yes | Richmond | 5.440 |
| VPA00056 | CRDRC-07 | 9.4 | 01/31/11 | yes | Blue Plains | 3.439 |
| VPA00056 | CRFFL-02 | 25.6 | 01/31/11 | yes | Blue Plains | 3.171 |
| VPA00056 | CRFFL-07 | 39.7 | 01/31/11 | yes | Blue Plains | 3.631 |
| VPA00056 | CRFFL-12 | 30.0 | 01/31/11 | yes | Blue Plains | 4.300 |
| VPA00056 | CRFFL-13 | 57.8 | 10/31/11 | yes | Abel Lake | 1.126 |
| VPA00056 | CRJAG-01 | 7.3 | 01/31/11 | yes | Bowie | 2.285 |
| VPA00056 | CRJAG-07 | 16.0 | 01/31/11 | yes | Richmond | 6.331 |
| VPA00056 | CRJRG-06 | 15.0 | 01/31/11 | yes | Blue Plains | 4.341 |
| VPA00056 | CRJRG-09 | 18.0 | 01/31/11 | yes | Blue Plains | 5.336 |
| VPA00056 | CRRFU-02 | 7.1 | 05/31/11 | yes | Blue Plains | 3.382 |
| VPA00056 | CRRFU-03 | 8.2 | 05/31/11 | yes | Blue Plains | 3.840 |
| VPA00056 | CRRFU-04 | 6.7 | 05/31/11 | yes | Blue Plains | 3.511 |
| VPA00056 | CRRFU-10 | 4.9 | 05/31/11 | yes | Blue Plains | 4.827 |
| VPA00056 | CRRFU-12 | 23.1 | 05/31/11 | yes | Blue Plains | 2.019 |
| VPA00056 | CRRFU-13 | 19.0 | 05/31/11 | yes | Blue Plains | 3.264 |
| VPA00056 | CRWBB-03 | 22.5 | 01/31/11 | yes | Blue Plains | 2.893 |
| VPA00056 | CRWBB-04 | 7.6 | 01/31/11 | yes | Blue Plains | 2.066 |
| VPA00056 | CRWBB-09 | 33.1 | 03/31/11 | yes | Richmond | 1.788 |
| VPA00056 | CRWBB-10 | 45.0 | 03/31/11 | yes | Richmond | 3.338 |
| VPA00056 | CRWRS-01 | 79.9 | 05/31/11 | yes | Blue Plains | 2.453 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|-------------------|--------------------|-------------|-----------|------------------|------------------|
| VPA 00057 | CUAPL-02 | 13.2 | 01/31/11 | yes | Blue Plains | 3.593 |
| VPA00057 | CUASH-09 | 32.4 | 05/31/11 | yes | Blue Plains | 3.948 |
| VPA00057 | CUASH-09 | 32.4 | 05/31/11 | yes | Dorsey Run | 0.211 |
| VPA00057 | CUASH-11 | 18.3 | 05/31/11 | yes | Blue Plains | 3.542 |
| VPA00057 | CUASH-11 | 18.3 | 05/31/11 | yes | Dorsey Run | 0.392 |
| VPA00057 | CUASH-18 | 23.7 | 05/31/11 | yes | Blue Plains | 4.353 |
| VPA00057 | CUASH-21 | 11.5 | 05/31/11 | yes | Culpeper | 0.896 |
| VPA00057 | CUASH-22 | 3.7 | 05/31/11 | yes | Culpeper | 0.973 |
| VPA00057 | CUASH-29 | 2.9 | 05/31/11 | yes | Bowie | 3.313 |
| VPA00057 | CUASH-30 | 15.0 | 05/31/11 | yes | Bowie | 0.093 |
| VPA00057 | CUASH-30 | 15.0 | 05/31/11 | yes | Culpeper | 1.971 |
| VPA00057 | CUASH-30 | 15.0 | 05/31/11 | yes | Dorsey Run | 0.454 |
| VPA00057 | CUASH-33 | 10.8 | 05/31/11 | yes | Blue Plains | 4.344 |
| VPA00057 | CUASH-46 | 10.5 | 04/30/11 | yes | FQWSA | 0.564 |
| VPA00057 | CUASH-46 | 10.5 | 04/30/11 | yes | Lake of Woods | 2.923 |
| VPA00057 | CUASH-47 | 7.2 | 04/30/11 | yes | North River | 2.296 |
| VPA00057 | CUASH-48 | 9.5 | 04/30/11 | yes | Lake of Woods | 2.757 |
| VPA00057 | CUASH-49 | 1.5 | 04/30/11 | yes | Lake of Woods | 2.628 |
| VPA00057 | CUASH-53 | 12.0 | 04/30/11 | yes | North River | 2.513 |
| VPA00057 | CUASH-54 | 8.9 | 04/30/11 | yes | North River | 2.421 |
| VPA00057 | CUATK-04 | 12.5 | 08/31/11 | yes | North River | 1.588 |
| VPA00057 | CUATK-05 | 35.0 | 08/31/11 | yes | Warrenton | 0.595 |
| VPA00057 | CUATK-06 | 22.0 | 08/31/11 | yes | North River | 1.262 |
| VPA00057 | CUATK-08 | 6.9 | 08/31/11 | yes | Culpeper | 1.661 |
| VPA00057 | CUATK-09 | 10.9 | 08/31/11 | yes | Warrenton | 2.863 |
| VPA00057 | CUATK-11 | 15.7 | 08/31/11 | yes | FQWSA | 0.622 |
| VPA00057 | CUATK-11 | 15.7 | 08/31/11 | yes | Little Falls Run | 0.580 |
| VPA00057 | CUATK-12 | 43.7 | 08/31/11 | yes | Little Falls Run | 0.599 |
| VPA00057 | CUATK-12 | 43.7 | 08/31/11 | yes | Warrenton | 0.635 |
| VPA00057 | CUBMF-02 | 25.0 | 04/30/11 | yes | Blue Plains | 3.120 |
| VPA00057 | CUBMF-06 | 13.1 | 04/30/11 | yes | Blue Plains | 2.347 |
| VPA00057 | CUBMF-11 | 32.6 | 04/30/11 | yes | Blue Plains | 2.400 |
| VPA00057 | CUBMF-12 | 14.5 | 04/30/11 | yes | Blue Plains | 2.152 |
| VPA00057 | CUBMF-12 | 14.5 | 04/30/11 | yes | Dorsey Run | 0.461 |
| VPA00057 | CUBMF-13 | 17.1 | 04/30/11 | yes | Blue Plains | 1.806 |
| VPA00057 | CUBMF-13 | 17.1 | 04/30/11 | yes | Dorsey Run | 0.804 |
| VPA00057 | CUBMF-13 | 17.1 | 04/30/11 | yes | Freedom District | 0.642 |
| VPA00057 | CUBMF-19 | 15.0 | 04/30/11 | yes | Blue Plains | 2.620 |
| VPA00057 | CUBMF-19 | 15.0 | 04/30/11 | yes | Freedom District | 0.354 |
| VPA00057 | CUBMF-20 | 15.0 | 04/30/11 | yes | Blue Plains | 3.067 |
| VPA00057 | CUBMF-21 | 15.0 | 04/30/11 | yes | Blue Plains | 3.143 |
| VPA00057 | CUBMF-30 | 8.5 | 05/31/11 | yes | Culpeper | 1.132 |
| vpa00057 | CUBMF-34 | 11.0 | 12/31/11 | yes | Blue Plains | 3.518 |
| VPA00057 | CUBMF-39 | 16.0 | 05/31/11 | yes | Culpeper | 0.679 |
| VPA00057 | CUBMF-43 | 24.0 | 05/31/11 | yes | Culpeper | 2.316 |
| VPA00057 | CUBMF-43 | 24.0 | 05/31/11 | yes | Purcellville | 0.197 |
| vpa00057 | CUBMF-44 | 24.0 | 12/31/11 | yes | Blue Plains | 2.244 |
| vpa00057 | CUBMF-44 | 24.0 | 12/31/11 | yes | Bowie | 0.606 |
| vpa00057 | CUBMF-44 | 24.0 | 12/31/11 | yes | Dillwyn | 0.045 |
| vpa00057 | CUBMF-44 | 24.0 | 12/31/11 | yes | Dorsey Run | 0.331 |

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| vpa00057 | CUBMF-45 | 16.0 | 12/31/11 | yes | Blue Plains | 2.916 |
| VPA00057 | CUBMF-46 | 20.5 | 05/31/11 | yes | Blue Plains | 3.123 |
| vpa00057 | CUBMF-47 | 6.0 | 12/31/11 | yes | Blue Plains | 3.854 |
| vpa00057 | CUBMF-48 | 10.0 | 12/31/11 | yes | Blue Plains | 3.810 |
| VPA00057 | CUBMF-49 | 20.4 | 04/30/11 | yes | Blue Plains | 2.697 |
| VPA00057 | CUBMF-49 | 20.4 | 04/30/11 | yes | FQWSA | 0.759 |
| VPA00057 | CUBMF-49 | 20.4 | 04/30/11 | yes | Freedom District | 0.224 |
| VPA00057 | CUBMF-50 | 7.4 | 04/30/11 | yes | Bowie | 2.181 |
| VPA00057 | CUBMF-50 | 7.4 | 04/30/11 | yes | Freedom District | 0.938 |
| VPA00057 | CUBMF-51 | 14.6 | 04/30/11 | yes | Blue Plains | 2.098 |
| VPA00057 | CUBMF-51 | 14.6 | 04/30/11 | yes | Bowie | 0.745 |
| VPA00057 | CUBMF-54 | 9.9 | 05/31/11 | yes | Warrenton | 2.369 |
| VPA00057 | CUBMF-55 | 19.5 | 04/30/11 | yes | Blue Plains | 2.814 |
| vpa00057 | CUBMF-57 | 7.5 | 12/31/11 | yes | Blue Plains | 3.079 |
| VPA00057 | CUCAM-01 | 22.5 | 05/31/11 | yes | Blue Plains | 2.460 |
| VPA00057 | CUCAM-01 | 22.5 | 05/31/11 | yes | Bowie | 0.491 |
| VPA00057 | CUCCC-06 | 7.2 | 08/31/11 | yes | Blue Plains | 5.385 |
| VPA00057 | CUCCC-09 | 10.4 | 08/31/11 | yes | Blue Plains | 6.081 |
| VPA00057 | CUHCD-02 | 16.0 | 11/31/11 | yes | Blue Plains | 3.876 |
| VPA00057 | CUHCD-03 | 10.8 | 11/31/11 | yes | Blue Plains | 2.128 |
| VPA00057 | CUHCD-03 | 10.8 | 11/31/11 | yes | Freedom District | 1.920 |
| VPA00057 | CUHCD-04 | 25.1 | 11/31/11 | yes | Blue Plains | 2.211 |
| VPA00057 | CUHCD-04 | 25.1 | 11/31/11 | yes | Dorsey Run | 0.758 |
| VPA00057 | CUHCD-04 | 25.1 | 11/31/11 | yes | Freedom District | 1.402 |
| VPA00057 | CUHCD-08 | 13.5 | 11/31/11 | yes | Blue Plains | 4.036 |
| VPA00057 | CUHCD-09 | 10.0 | 11/31/11 | yes | Blue Plains | 4.061 |
| VPA00057 | CUHCD-16 | 7.8 | 11/31/11 | yes | Culpeper Cake | 2.876 |
| VPA00057 | CUISF-01 | 18.0 | 06/30/11 | yes | Blue Plains | 2.369 |
| VPA00057 | CUISF-02 | 50.5 | 06/30/11 | yes | Blue Plains | 2.413 |
| VPA00057 | CUISF-04 | 25.5 | 05/31/11 | yes | North River | 0.771 |
| VPA00057 | CUISF-04 | 25.5 | 05/31/11 | yes | Purcellville | 0.377 |
| VPA00057 | CUISF-05 | 35.4 | 05/31/11 | yes | Blue Plains | 2.210 |
| VPA00057 | CUISF-06 | 28.3 | 05/31/11 | yes | Culpeper | 0.384 |
| VPA00057 | CUISF-06 | 28.3 | 05/31/11 | yes | FQWSA | 0.553 |
| VPA00057 | CUISF-06 | 28.3 | 05/31/11 | yes | North River | 0.407 |
| VPA00057 | CUISF-07 | 32.2 | 05/31/11 | yes | North River | 1.042 |
| VPA00057 | CUISF-08 | 29.7 | 05/31/11 | yes | North River | 1.136 |
| VPA00057 | CUISF-09 | 11.9 | 05/31/11 | yes | FQWSA | 0.907 |
| VPA00057 | CUISF-09 | 11.9 | 05/31/11 | yes | North River | 0.374 |
| VPA00057 | CUISF-10 | 11.4 | 05/31/11 | yes | North River | 1.034 |
| VPA00057 | CUJDS-01 | 59.0 | 03/31/11 | yes | FQWSA | 0.566 |
| VPA00057 | CUJDS-01 | 59.0 | 03/31/11 | yes | North River | 0.521 |
| VPA00057 | CUJDS-01 | 59.0 | 03/31/11 | yes | Purcellville Cake | 0.257 |
| VPA00057 | CUJDS-02 | 35.5 | 03/31/11 | yes | Blue Plains | 0.432 |
| VPA00057 | CUJDS-02 | 35.5 | 03/31/11 | yes | Dorsey Run | 0.410 |
| VPA00057 | CUJDS-02 | 35.5 | 03/31/11 | yes | Freedom District | 0.304 |
| VPA00057 | CUJDS-03 | 35.5 | 04/30/11 | yes | Dorsey Run | 0.195 |
| VPA00057 | CUJDS-05 | 30.5 | 05/31/11 | yes | Blue Plains | 1.038 |
| VPA00057 | CUJDS-05 | 30.5 | 05/31/11 | yes | FQWSA | 0.351 |
| VPA00057 | CUJDS-05 | 30.5 | 05/31/11 | yes | Warrenton | 0.879 |
| VPA00057 | CUJDS-09 | 31.6 | 03/31/11 | yes | Blue Plains | 3.716 |
| VPA00057 | CUJDS-09 | 31.6 | 03/31/11 | yes | Freedom District | 0.394 |

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| VPA00057 | CUJDS-14 | 40.6 | 04/30/11 | yes | Blue Plains | 0.387 |
| VPA00057 | CUJDS-14 | 40.6 | 04/30/11 | yes | Dorsey Run | 0.161 |
| VPA00057 | CUJDS-14 | 40.6 | 04/30/11 | yes | North River | 2.260 |
| VPA00057 | CUJDS-16 | 7.0 | 04/30/11 | yes | Blue Plains | 4.535 |
| VPA00057 | CUJDS-18 | 30.5 | 04/30/11 | yes | Blue Plains | 1.034 |
| VPA00057 | CUJDS-19 | 40.0 | 03/31/11 | yes | Blue Plains | 1.576 |
| VPA00057 | CUJDS-19 | 40.0 | 03/31/11 | yes | Freedom District | 0.272 |
| VPA00057 | CUJDS-19 | 40.0 | 03/31/11 | yes | MCI | 2.316 |
| VPA00057 | CUJDS-20 | 40.0 | 03/31/11 | yes | Blue Plains | 3.531 |
| VPA00057 | CUJDS-20 | 40.0 | 03/31/11 | yes | Bowie | 0.416 |
| VPA00057 | CUJDS-20 | 40.0 | 03/31/11 | yes | Freedom District | 0.289 |
| VPA00057 | CUJDS-22 | 31.4 | 03/31/11 | yes | Blue Plains | 4.202 |
| VPA00057 | CUJDS-23 | 24.3 | 03/31/11 | yes | Blue Plains | 2.917 |
| VPA00057 | CUJDS-23 | 24.3 | 03/31/11 | yes | Bowie | 0.681 |
| VPA00057 | CUJDS-23 | 24.3 | 03/31/11 | yes | Freedom District | 0.516 |
| VPA00057 | CUJDS-24 | 29.2 | 04/30/11 | yes | Blue Plains | 1.580 |
| VPA00057 | CUJHB-01 | 6.9 | 09/30/11 | yes | Blue Plains | 3.351 |
| VPA00057 | CUJRD-01 | 43.0 | 07/31/11 | yes | Blue Plains | 2.975 |
| VPA00057 | CUJRD-02 | 40.0 | 06/30/11 | yes | Blue Plains | 1.777 |
| VPA00057 | CUJRD-02 | 40.0 | 06/30/11 | yes | Dorsey Run | 0.189 |
| VPA00057 | CUJRD-02 | 40.0 | 06/30/11 | yes | Freedom District | 0.415 |
| VPA00057 | CUJRD-02 | 40.0 | 07/31/11 | yes | Blue Plains | 0.589 |
| VPA00057 | CUJRD-02 | 40.0 | 07/31/11 | yes | Dorsey Run | 0.145 |
| VPA00057 | CUJRD-03 | 19.8 | 06/30/11 | yes | Blue Plains | 2.401 |
| VPA00057 | CUJRD-03 | 19.8 | 06/30/11 | yes | Bowie | 0.854 |
| VPA00057 | CUJRD-04 | 15.0 | 06/30/11 | yes | Blue Plains | 3.124 |
| VPA00057 | CUJRD-04 | 15.0 | 06/30/11 | yes | Freedom District | 0.704 |
| VPA00057 | CUJRD-05 | 20.0 | 07/31/11 | yes | Blue Plains | 2.771 |
| VPA00057 | CUJRD-05 | 20.0 | 07/31/11 | yes | Purcellville | 0.447 |
| VPA00057 | CUKAF-01 | 12.0 | 10/31/11 | yes | Blue Plains | 2.620 |
| VPA00057 | CUKAF-02 | 25.3 | 10/31/11 | yes | Blue Plains | 3.107 |
| VPA00057 | CUKWD-04 | 13.9 | 07/31/11 | yes | Culpeper | 4.946 |
| VPA 00057 | CURCT-15 | 31.7 | 01/31/11 | yes | Culpeper | 1.765 |
| VPA 00057 | CURCT-15 | 31.7 | 01/31/11 | yes | FQWSA | 0.197 |
| VPA 00057 | CURCT-15 | 31.7 | 01/31/11 | yes | Lake of Woods | 1.106 |
| VPA00057 | CUREB-04 | 23.5 | 08/31/11 | yes | Blue Plains | 3.297 |
| VPA00057 | CUREB-04 | 23.5 | 08/31/11 | yes | Dorsey Run | 0.252 |
| VPA00057 | CUREB-04 | 23.5 | 08/31/11 | yes | Freedom District | 0.263 |
| VPA00057 | CUREB-07 | 10.8 | 08/31/11 | yes | Blue Plains | 5.063 |
| VPA00057 | CUREB-12 | 17.3 | 08/31/11 | yes | Blue Plains | 6.743 |
| VPA00057 | CUREB-12 | 17.3 | 08/31/11 | yes | Dorsey Run | 0.299 |
| VPA00057 | CURED-05 | 7.7 | 08/31/11 | yes | Richmond | 2.554 |
| VPA00057 | CURHD-01 | 12.5 | 11/31/11 | yes | Blue Plains | 2.091 |
| VPA00057 | CURHD-01 | 12.5 | 11/31/11 | yes | Bowie | 1.167 |
| VPA00057 | CURHD-02 | 17.0 | 11/31/11 | yes | Blue Plains | 4.040 |
| VPA00057 | CUSPF-09 | 37.0 | 08/31/11 | yes | Blue Plains | 2.313 |
| VPA00057 | CUSPF-10 | 51.5 | 08/31/11 | yes | Blue Plains | 4.122 |
| VPA00057 | CUSPF-10 | 51.5 | 08/31/11 | yes | Dillwyn | 0.014 |
| VPA00057 | CUSPF-11 | 12.0 | 08/31/11 | yes | Blue Plains | 3.901 |
| VPA00057 | CUTAS-06 | 15.5 | 04/30/11 | yes | FQWSA | 1.063 |
| VPA00057 | CUTAS-06 | 15.5 | 04/30/11 | yes | North River | 0.492 |
| VPA00057 | CUTAS-07 | 12.5 | 04/30/11 | yes | North River | 0.930 |

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| VPA00057 | CUTAS-08 | 32.0 | 04/30/11 | yes | North River | 0.584 |
| VPA00057 | CUTOM-05 | 37.0 | 08/31/11 | yes | Blue Plains | 4.884 |
| VPA00057 | CUTOM-06 | 30.7 | 08/31/11 | yes | Blue Plains | 0.267 |
| VPA00057 | CUTPH-04 | 15.0 | 08/31/11 | yes | Blue Plains | 4.195 |
| VPA00057 | CUTPH-06 | 17.5 | 08/31/11 | yes | Blue Plains | 4.033 |
| VPA00057 | CUVXV-02 | 12.0 | 06/30/11 | yes | Blue Plains | 2.587 |
| VPA00057 | CUVXV-02 | 12.0 | 06/30/11 | yes | Bowie | 0.412 |
| VPA00057 | CUVXV-02 | 12.0 | 06/30/11 | yes | Dorsey Run | 0.555 |
| VPA00057 | CUVXV-02 | 12.0 | 06/30/11 | yes | Freedom District | 1.576 |
| VPA00057 | CUWAS-01 | 54.0 | 09/30/11 | yes | Lake of Woods | 1.672 |
| VPA00057 | CUWAS-01 | 54.0 | 09/30/11 | yes | North River | 1.219 |
| VPA00057 | CUWAS-01 | 54.0 | 09/30/11 | yes | FQWSA | 0.176 |
| VPA00057 | CUWAS-07 | 35.0 | 11/31/11 | yes | Blue Plains | 3.989 |
| VPA00057 | CUWAS-07 | 35.0 | 11/31/11 | yes | Bowie | 0.285 |
| VPA00057 | CUWAS-07 | 35.0 | 11/31/11 | yes | Dillwyn | 0.031 |
| VPA00057 | CUWAS-07 | 35.0 | 11/31/11 | yes | Dorsey Run | 0.200 |
| VPA00057 | CUWAS-08 | 54.0 | 09/30/11 | yes | Blue Plains | 2.274 |
| VPA00057 | CUWAS-08 | 54.0 | 09/30/11 | yes | Bowie | 0.389 |
| VPA00057 | CUWAS-08 | 54.0 | 09/30/11 | yes | Freedom District | 0.245 |
| VPA00057 | CUWAS-08 | 54.0 | 09/30/11 | yes | MCI | 1.717 |
| VPA00057 | CUWAS-09 | 40.0 | 09/30/11 | yes | Blue Plains | 3.657 |
| VPA00057 | CUWAS-09 | 40.0 | 09/30/11 | yes | Dorsey Run | 0.285 |
| VPA00057 | CUWAS-09 | 40.0 | 09/30/11 | yes | Freedom District | 0.339 |
| VPA00057 | CUWAS-10 | 23.0 | 08/31/11 | yes | Blue Plains | 5.414 |
| VPA00057 | CUWAS-10 | 23.0 | 08/31/11 | yes | Dorsey Run | 0.258 |
| VPA00057 | CUWAS-10 | 23.0 | 08/31/11 | yes | Freedom District | 0.284 |
| VPA00057 | CUWAS-12 | 24.0 | 08/31/11 | yes | Blue Plains | 2.941 |
| VPA00057 | CUWAS-12 | 24.0 | 08/31/11 | yes | Freedom District | 0.282 |
| VPA00057 | CUWAS-13 | 4.7 | 09/30/11 | yes | Blue Plains | 3.241 |
| VPA00057 | CUWAS-15 | 24.5 | 09/30/11 | yes | Blue Plains | 2.867 |
| VPA00057 | CUWAS-15 | 24.5 | 09/30/11 | yes | Bowie | 0.438 |
| VPA00057 | CUWAS-16 | 15.0 | 04/30/11 | yes | North River | 1.022 |
| VPA00057 | CUWAS-17 | 56.0 | 04/30/11 | yes | Blue Plains | 2.078 |
| VPA00057 | CUWAS-17 | 56.0 | 04/30/11 | yes | FQWSA | 0.106 |
| VPA00057 | CUWAS-17 | 56.0 | 04/30/11 | yes | Freedom District | 0.105 |
| VPA00057 | CUWAS-17 | 56.0 | 04/30/11 | yes | North River | 0.129 |
| VPA00057 | CUWAS-18 | 43.2 | 04/30/11 | yes | Blue Plains | 2.524 |
| VPA00057 | CUWAS-18 | 43.2 | 04/30/11 | yes | Dorsey Run | 0.325 |
| VPA00057 | CUWAS-18 | 43.2 | 04/30/11 | yes | Freedom District | 0.126 |
| VPA00057 | CUWAS-19 | 34.0 | 11/31/11 | yes | Blue Plains | 1.123 |
| VPA00057 | CUWEL-01 | 45.5 | 05/31/11 | yes | Blue Plains | 3.015 |
| VPA00057 | CUWEL-01 | 45.5 | 05/31/11 | yes | Culpeper | 0.358 |
| VPA00057 | CUWEL-01 | 45.5 | 05/31/11 | yes | Freedom District | 0.519 |
| VPA00057 | CUWEL-02 | 22.0 | 05/31/11 | yes | Warrenton | 3.046 |
| VPA00057 | CUWEL-03 | 17.4 | 05/31/11 | yes | Blue Plains | 2.948 |
| VPA00057 | CUWEL-03 | 17.4 | 05/31/11 | yes | Dillwyn | 0.069 |
| VPA00057 | CUWEL-03 | 17.4 | 05/31/11 | yes | Freedom District | 0.685 |
| VPA00057 | CUWEL-04 | 10.0 | 05/31/11 | yes | Blue Plains | 4.038 |
| VPA00057 | CUWEL-05 | 18.5 | 05/31/11 | yes | Blue Plains | 3.866 |
| VPA00057 | CUWEL-07 | 24.9 | 05/31/11 | yes | Blue Plains | 3.477 |

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| VPA00058 | SPDFE-08 | 18.2 | 08/31/11 | yes | Blue Plains | 4.754 |
| VPA00058 | SPDFE-08 | 18.2 | 08/31/11 | yes | Bowie | 0.286 |
| VPA00058 | SPDFE-09 | 16.1 | 08/31/11 | yes | Little Falls Run | 0.788 |
| VPA00058 | SPFLM-01 | 15.8 | 07/31/11 | yes | Bowie | 1.065 |
| VPA00058 | SPFLM-01 | 15.8 | 07/31/11 | yes | Blue Plains | 3.025 |
| VPA00058 | SPFLM-02 | 24.3 | 07/31/11 | yes | Blue Plains | 4.275 |
| VPA00058 | SPFLM-03 | 36.2 | 07/31/11 | yes | Blue Plains | 2.635 |
| VPA00058 | SPFLM-06 | 11.6 | 08/31/11 | yes | Blue Plains | 3.387 |
| VPA00058 | SPFLM-07 | 8.1 | 08/31/11 | yes | Blue Plains | 2.934 |
| VPA00058 | SPFLM-07 | 8.1 | 08/31/11 | yes | Bowie | 1.261 |
| VPA 00058 | SPJBL-03 | 3.0 | 01/31/11 | yes | Blue Plains | 5.265 |
| VPA 00058 | SPJBL-04 | 10.4 | 01/31/11 | yes | Blue Plains | 5.406 |
| VPA 00058 | SPJBL-05 | 9.7 | 01/31/11 | yes | Blue Plains | 4.983 |
| VPA00058 | SPJCH-01 | 3.9 | 08/31/11 | yes | Blue Plains | 2.042 |
| VPA00058 | SPJCH-02 | 3.1 | 08/31/11 | yes | Blue Plains | 2.444 |
| VPA00058 | SPJCH-03 | 27.9 | 08/31/11 | yes | Blue Plains | 2.269 |
| VPA00058 | SPJCH-04 | 13.3 | 08/31/11 | yes | Blue Plains | 4.125 |
| VPA00058 | SPJXH-02 | 13.2 | 09/30/11 | yes | Blue Plains | 3.525 |
| VPA00058 | SPJXH-03 | 14.6 | 09/30/11 | yes | Blue Plains | 3.773 |
| VPA00058 | SPJXH-04 | 15.9 | 09/30/11 | yes | Blue Plains | 3.966 |
| VPA00058 | SPJXH-05 | 7.0 | 09/30/11 | yes | Blue Plains | 3.346 |
| VPA00058 | SPRCB-01 | 10.7 | 09/30/11 | yes | Blue Plains | 2.843 |
| VPA00058 | SPRCB-05 | 17.8 | 09/30/11 | yes | Blue Plains | 5.179 |
| VPA00058 | SPRLJ-01 | 21.2 | 08/31/11 | yes | Blue Plains | 2.189 |
| VPA00058 | SPRLJ-02 | 17.3 | 08/31/11 | yes | Blue Plains | 1.362 |
| VPA00058 | SPRLJ-02 | 17.3 | 08/31/11 | yes | Bowie | 0.421 |
| VPA00058 | SPRLJ-04 | 6.1 | 08/31/11 | yes | Blue Plains | 3.937 |
| VPA00058 | SPRLJ-05 | 4.2 | 08/31/11 | yes | Blue Plains | 1.842 |
| VPA00058 | SPVDD-01 | 35.9 | 08/31/11 | yes | Blue Plains | 2.193 |
| VPA00058 | SPWRG-07 | 10.4 | 03/31/11 | yes | Richmond | 3.411 |
| VPA00058 | SPWRG-09 | 21.4 | 03/31/11 | yes | Richmond | 4.415 |

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| VPA00060 | ORBRF-01 | 8.0 | 10/31/11 | yes | Blue Plains | 0.983 |
| VPA00060 | ORBRF-03 | 4.1 | 10/31/11 | yes | North River | 1.873 |
| VPA00060 | ORBRF-05 | 14.5 | 10/31/11 | yes | North River | 2.181 |
| VPA00060 | ORBRF-07 | 8.0 | 10/31/11 | yes | Blue Plains | 3.930 |
| VPA00060 | ORBRF-13B | 4.5 | 10/31/11 | yes | FQWSA | 2.126 |
| VPA00060 | ORCWR-03 | 16.0 | 10/31/11 | yes | Blue Plains | 3.930 |
| VPA00060 | ORESM-01 | 19.0 | 10/31/11 | yes | Blue Plains | 4.551 |
| VPA00060 | ORESM-02 | 4.4 | 10/31/11 | yes | Little Falls Run | 2.050 |
| VPA00060 | ORESM-03 | 3.2 | 10/31/11 | yes | Blue Plains | 2.456 |
| VPA00060 | OREVB-05 | 15.8 | 01/31/11 | yes | North River | 0.712 |
| VPA00060 | ORJWG-05 | 35.0 | 05/31/11 | yes | Blue Plains | 4.987 |
| VPA00060 | ORJWG-10 | 16.5 | 05/31/11 | yes | Blue Plains | 4.318 |
| VPA00060 | ORJWG-11 | 15.4 | 05/31/11 | yes | Blue Plains | 4.522 |
| VPA00060 | ORJWG-12 | 7.0 | 05/31/11 | yes | Blue Plains | 4.539 |
| VPA00060 | ORJWG-13 | 16.6 | 05/31/11 | yes | Blue Plains | 3.860 |
| VPA00060 | ORJWG-16 | 16.5 | 05/31/11 | yes | Blue Plains | 4.262 |
| VPA00060 | ORJWG-17 | 27.8 | 05/31/11 | yes | Blue Plains | 5.394 |
| VPA00060 | ORJWG-18 | 10.8 | 05/31/11 | yes | Blue Plains | 4.487 |
| VPA00060 | ORJWG-19 | 8.1 | 05/31/11 | yes | Blue Plains | 4.985 |
| VPA00060 | ORMFL-01 | 15.7 | 06/30/11 | yes | Blue Plains | 4.573 |
| VPA00060 | ORMFL-02 | 20.0 | 06/30/11 | yes | Blue Plains | 1.992 |
| VPA00060 | ORMFL-04 | 9.5 | 06/30/11 | yes | Dillwyn | 0.075 |
| VPA00060 | ORMFL-04 | 9.5 | 06/30/11 | yes | North River | 1.282 |
| VPA00060 | ORMFL-07 | 13.0 | 06/30/11 | yes | Blue Plains | 1.254 |
| VPA00060 | ORMFL-08 | 9.0 | 06/30/11 | yes | Blue Plains | 4.395 |
| VPA00060 | ORMFL-09 | 1.9 | 06/30/11 | yes | Blue Plains | 4.337 |
| VPA00060 | ORMTC-01 | 8.6 | 08/31/11 | yes | Blue Plains | 3.730 |
| VPA00060 | ORMTC-02 | 7.7 | 08/31/11 | yes | Blue Plains | 4.046 |
| VPA00060 | ORMTC-03 | 18.7 | 06/30/11 | yes | Blue Plains | 3.782 |
| VPA00060 | ORREF-03 | 15.5 | 05/31/11 | yes | Blue Plains | 3.259 |
| VPA00060 | ORSWA-01 | 31.0 | 06/30/11 | yes | North River | 1.184 |
| VPA00060 | ORSWA-01 | 31.0 | 06/30/11 | yes | Purcellville | 0.607 |
| VPA00060 | ORSWA-03 | 40.0 | 06/30/11 | yes | FQWSA | 0.248 |
| VPA00060 | ORSWA-03 | 40.0 | 06/30/11 | yes | North River | 1.710 |
| VPA00060 | ORTAB-11 | 12.5 | 01/31/11 | yes | Blue Plains | 1.914 |
| VPA00060 | ORTAB-11 | 12.5 | 01/31/11 | yes | Freedom District | 0.498 |
| VPA00060 | ORTAB-11 | 14.0 | 07/31/11 | yes | Little Falls Run | 2.216 |
| VPA00060 | ORTAB-13 | 14.5 | 07/31/11 | yes | Blue Plains | 2.690 |
| VPA00060 | ORTAB-13 | 14.5 | 07/31/11 | yes | Freedom District | 0.775 |
| VPA00060 | ORTMM-01 | 10.5 | 01/31/11 | yes | North River | 0.763 |
| VPA00060 | ORTMM-05 | 11.0 | 01/31/11 | yes | North River | 1.401 |
| VPA00060 | ORWAG-08 | 18.0 | 01/31/11 | yes | North River | 1.084 |

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| VPA00061 | MACHE-01 | 20.0 | 11/31/11 | yes | Blue Plains | 3.928 |
| VPA00061 | MACHE-01 | 20.0 | 11/31/11 | yes | Bowie | 0.247 |
| VPA00061 | MACHE-02 | 15.0 | 11/31/11 | yes | FQWSA | 0.671 |
| VPA00061 | MACHE-02 | 15.0 | 11/31/11 | yes | Little Falls Run | 1.228 |
| VPA00061 | MACHE-02 | 15.0 | 11/31/11 | yes | Purcellville | 0.973 |
| VPA00061 | MACHE-18 | 11.6 | 11/31/11 | yes | North River | 2.111 |

| Permit No | Field Desingation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
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| VPA00801 | HAGVL-01 | 14.7 | 07/31/11 | yes | Richmond | 2.876 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
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| VPA00804 | EXREG-24 | 20.0 | 05/31/11 | yes | Blue Plains | 1.980 |
| VPA 00804 | EXGAH-01 | 7.8 | 02/28/11 | yes | Blue Plains | 4.042 |
| VPA 00804 | EXGAH-02 | 20.8 | 02/28/11 | yes | Blue Plains | 4.144 |
| VPA 00804 | EXGAH-02 | 20.8 | 02/28/11 | yes | Freedom District | 0.284 |
| VPA 00804 | EXGAH-03 | 15.7 | 02/28/11 | yes | Blue Plains | 5.485 |
| VPA 00804 | EXWSD-01 | 65.0 | 02/28/11 | yes | Blue Plains | 3.404 |
| VPA 00804 | EXWSD-03 | 38.5 | 02/28/11 | yes | Blue Plains | 4.096 |
| VPA 00804 | EXWSD-09 | 19.2 | 02/28/11 | yes | Blue Plains | 2.087 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
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| VPA00805 | KQREG-02 | 67.3 | 05/31/11 | yes | Blue Plains | 2.129 |
| VPA00805 | KQREG-18 | 10.5 | 05/31/11 | yes | Blue Plains | 5.248 |
| VPA00805 | KQREG-25 | 19.9 | 05/31/11 | yes | Blue Plains | 3.196 |
| VPA00805 | KQREG-26 | 24.0 | 05/31/11 | yes | Blue Plains | 5.578 |
| VPA00805 | KQWLR-03 | 4.8 | 05/31/11 | yes | Blue Plains | 4.954 |
| VPA00805 | KQWLR-05 | 13.9 | 05/31/11 | yes | Blue Plains | 3.371 |
| VPA00805 | KQWLR-05 | 13.9 | 05/31/11 | yes | Dorsey Run | 0.538 |
| VPA00805 | KQWLR-06 | 10.8 | 05/31/11 | yes | Blue Plains | 3.658 |
| VPA00805 | KQWLR-07 | 37.4 | 05/31/11 | yes | Blue Plains | 2.306 |
| VPA00805 | KQWLR-09 | 3.9 | 05/31/11 | yes | Blue Plains | 2.066 |
| VPA00805 | KQWLR-10 | 6.2 | 05/31/11 | yes | Blue Plains | 2.562 |
| VPA00805 | KQTWF-05 | 8.6 | 03/31/11 | yes | Richmond | 3.560 |
| VPA00805 | KQRMS-01 | 21.8 | 01/31/11 | yes | Blue Plains | 4.082 |
| VPA00805 | KQRMS-02 | 30.1 | 01/31/11 | yes | Blue Plains | 4.562 |
| VPA00805 | KQRMS-03 | 49.4 | 01/31/11 | yes | Blue Plains | 3.915 |
| VPA00805 | KQRMS-03 | 49.4 | 01/31/11 | yes | Dorsey Run | 0.157 |
| VPA00805 | KQTWF-01 | 21.6 | 01/31/11 | yes | Blue Plains | 3.390 |
| VPA00805 | KQTWF-01 | 21.6 | 01/31/11 | yes | Freedom District | 0.716 |
| VPA00805 | KQTWF-02 | 19.8 | 01/31/11 | yes | Blue Plains | 4.064 |
| VPA00805 | KQCWD-11 | 4.7 | 02/28/11 | yes | Blue Plains | 3.280 |
| VPA00805 | KQCWD-12 | 5.3 | 02/28/11 | yes | Blue Plains | 4.387 |
| VPA00805 | KQFGF-01 | 11.2 | 02/28/11 | yes | Blue Plains | 3.489 |
| VPA00805 | KQFGF-02 | 20.9 | 02/28/11 | yes | Blue Plains | 3.388 |
| VPA00805 | KQJMF-02 | 11.8 | 02/28/11 | yes | Blue Plains | 3.995 |
| VPA00805 | KQJMF-08 | 85.5 | 04/30/11 | yes | Blue Plains | 1.901 |
| VPA00805 | KQJWW-01 | 12.1 | 02/28/11 | yes | Blue Plains | 4.505 |
| VPA00805 | KQJWW-02 | 5.3 | 02/28/11 | yes | Blue Plains | 4.558 |
| VPA00805 | KQJWW-04 | 15.9 | 02/28/11 | yes | Blue Plains | 4.023 |
| VPA00805 | KQLWW-04 | 48.7 | 02/28/11 | yes | Blue Plains | 3.416 |
| VPA00805 | KQLWW-05 | 10.8 | 02/28/11 | yes | Blue Plains | 2.178 |
| VPA00805 | KQREG-13 | 29.3 | 12/31/11 | yes | Blue Plains | 4.189 |
| VPA00805 | KQRPL-02 | 25.6 | 04/30/11 | yes | Blue Plains | 2.152 |
| VPA00805 | KQRPL-05 | 7.3 | 04/30/11 | yes | Blue Plains | 1.068 |
| VPA00805 | KQRPL-06 | 8.2 | 02/28/11 | yes | Blue Plains | 2.880 |
| VPA00805 | KQRPL-07 | 12.0 | 02/28/11 | yes | Blue Plains | 1.963 |
| VPA00805 | KQTLJ-01 | 46.3 | 04/30/11 | yes | Blue Plains | 4.536 |
| VPA00805 | KQTLJ-02 | 42.4 | 04/30/11 | yes | Blue Plains | 4.607 |
| VPA00805 | KQTLJ-03 | 9.0 | 04/30/11 | yes | Blue Plains | 4.364 |
| VPA00805 | KQTWF-03 | 43.5 | 02/28/11 | yes | Blue Plains | 3.814 |
| VPA00805 | KQTWF-04 | 7.6 | 02/28/11 | yes | Blue Plains | 4.070 |
| VPA00805 | KQTWF-06 | 42.9 | 02/28/11 | yes | Blue Plains | 4.210 |
| VPA00805 | KQTWF-06 | 42.9 | 02/28/11 | yes | Freedom District | 0.418 |

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| VPA00809 | PGWCB-01 | 28.1 | 04/30/11 | yes | Blue Plains | 1.90 |
| VPA00809 | PGWCB-01 | 28.1 | 04/30/11 | yes | SCWWA | 2.81 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
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| VPA00811 | AMCHH-02 | 21.9 | 03/31/11 | yes | Blue Plains | 2.102 |
| VPA00811 | AMCHH-02 | 21.9 | 03/31/11 | yes | SCWWA | 0.839 |
| VPA00811 | AMCWK-03 | 22.1 | 03/31/11 | yes | Blue Plains | 3.163 |
| VPA00811 | AMCWK-03 | 22.1 | 03/31/11 | yes | SCWWA | 0.622 |
| VPA00811 | AMCWK-04 | 18.9 | 03/31/11 | yes | Blue Plains | 1.218 |
| VPA00811 | AMCWK-04 | 18.9 | 03/31/11 | yes | SCWWA | 0.743 |
| VPA00811 | AMCWK-13 | 16.2 | 03/31/11 | yes | Blue Plains | 0.947 |
| VPA00811 | AMCWK-13 | 16.2 | 03/31/11 | yes | SCWWA | 0.921 |
| VPA00811 | AMCWK-14 | 17.9 | 03/31/11 | yes | Blue Plains | 1.774 |
| VPA00811 | AMCWK-15 | 32.5 | 03/31/11 | yes | Blue Plains | 2.886 |
| VPA00811 | AMCWK-15 | 32.5 | 03/31/11 | yes | SCWWA | 1.063 |
| VPA00811 | AMCWK-16 | 36.3 | 03/31/11 | yes | Blue Plains | 1.268 |
| VPA00811 | AMCWK-16 | 36.3 | 03/31/11 | yes | SCWWA | 0.559 |
| VPA00811 | AMRLB-22 | 13.8 | 03/31/11 | yes | Blue Plains | 1.112 |
| VPA00811 | AMRLB-22 | 13.8 | 03/31/11 | yes | SCWWA | 1.452 |
| VPA00811 | AMRLB-16 | 15.6 | 08/31/11 | yes | Richmond | 3.035 |
| VPA00811 | AMRLB-30 | 12.8 | 08/31/11 | yes | Richmond | 2.767 |

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| VPA00814 | LCGAF-02 | 25.6 | 03/31/11 | yes | Blue Plains | 3.953 |
| VPA00814 | LCGAF-04 | 12.9 | 03/31/11 | yes | Blue Plains | 4.829 |
| VPA00814 | LCGHL-01 | 28.8 | 03/31/11 | yes | Blue Plains | 2.736 |
| VPA00814 | LCREL-01 | 11.9 | 03/31/11 | yes | Blue Plains | 5.271 |
| VPA00814 | LCREL-02 | 24.1 | 03/31/11 | yes | Blue Plains | 3.248 |
| VPA00814 | LCREL-03 | 6.6 | 03/31/11 | yes | Blue Plains | 3.607 |
| VPA00814 | LCITH-03 | 27.1 | 04/30/11 | yes | Blue Plains | 3.432 |
| VPA00814 | LCITH-04 | 20.0 | 04/30/11 | yes | Blue Plains | 3.886 |
| VPA00814 | LCITH-05 | 27.9 | 04/30/11 | yes | Blue Plains | 3.918 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
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| VPA00816 | NUWBE-01 | 24.2 | 03/31/11 | yes | Blue Plains | 3.896 |
| VPA00816 | NUWBE-03 | 18.1 | 03/31/11 | yes | Blue Plains | 4.325 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
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| VPA 00817 | DWASE-03 | 17.0 | 02/28/11 | yes | Blue Plains | 2.177 |
| VPA 00817 | DWASE-04 | 15.0 | 02/28/11 | yes | Blue Plains | 1.974 |
| VPA00817 | DWAWB-04 | 51.7 | 05/31/11 | yes | Richmond | 2.813 |
| VPA00817 | DWAWB-06 | 20.0 | 04/30/11 | yes | Blue Plains | 3.867 |
| VPA00817 | DWAWB-07 | 18.5 | 04/30/11 | yes | SCWWA | 4.590 |
| VPA 00817 | DWCAB-01 | 38.0 | 02/28/11 | yes | Blue Plains | 4.072 |
| VPA00817 | DWCLE-01 | 11.0 | 07/31/11 | yes | Richmond | 2.485 |
| VPA00817 | DWCLE-02 | 11.3 | 07/31/11 | yes | SCWWA | 4.472 |
| VPA00817 | DWCLE-03 | 11.8 | 07/31/11 | yes | Richmond | 3.637 |
| VPA00817 | DWCLE-04 | 17.0 | 07/31/11 | yes | Richmond | 3.699 |
| VPA00817 | DWDJD-01 | 58.6 | 09/30/11 | yes | Blue Plains | 3.939 |
| VPA00817 | DWDJD-02 | 26.8 | 09/30/11 | yes | Blue Plains | 3.787 |
| VPA00817 | DWDSS-03 | 16.5 | 05/31/11 | yes | Richmond | 2.409 |
| VPA 00817 | DWEMC-01 | 27.5 | 02/28/11 | yes | Blue Plains | 3.395 |
| VPA 00817 | DWEMC-02 | 5.7 | 02/28/11 | yes | Blue Plains | 3.275 |
| VPA 00817 | DWEMC-03 | 7.3 | 02/28/11 | yes | Blue Plains | 2.558 |
| VPA 00817 | DWFXM-03 | 39.2 | 02/28/11 | yes | Richmond | 1.230 |
| VPA 00817 | DWFXM-05 | 8.8 | 02/28/11 | yes | Blue Plains | 4.205 |
| VPA00817 | DWGAB-01 | 15.5 | 05/31/11 | yes | Blue Plains | 3.582 |
| VPA00817 | DWGAB-01 | 15.5 | 05/31/11 | yes | SCWWA | 0.419 |
| VPA00817 | DWGJR-03 | 34.8 | 05/31/11 | yes | Richmond | 4.087 |
| VPA00817 | DWGMM-01 | 16.1 | 03/31/11 | yes | Richmond | 2.840 |
| VPA00817 | DWGPG-02 | 5.5 | 04/30/11 | yes | Blue Plains | 1.386 |
| VPA00817 | DWGPG-02 | 5.5 | 04/30/11 | yes | SCWWA | 2.599 |
| VPA00817 | DWGPG-04 | 19.3 | 04/30/11 | yes | SCWWA | 1.729 |
| VPA00817 | DWGPG-06 | 10.5 | 04/30/11 | yes | Blue Plains | 2.178 |
| VPA00817 | DWGPG-07 | 16.2 | 04/30/11 | yes | SCWWA | 1.677 |
| VPA00817 | DWGPG-08 | 4.4 | 04/30/11 | yes | Blue Plains | 1.733 |
| VPA00817 | DWGPG-09 | 3.0 | 04/30/11 | yes | Blue Plains | 2.210 |
| VPA00817 | DWGPG-10 | 4.4 | 04/30/11 | yes | Blue Plains | 1.733 |
| VPA 00817 | DWGSB-01 | 30.9 | 02/28/11 | yes | Blue Plains | 4.257 |
| VPA 00817 | DWGSB-02 | 27.8 | 02/28/11 | yes | Blue Plains | 3.903 |
| VPA 00817 | DWGSB-03 | 32.9 | 02/28/11 | yes | Blue Plains | 4.233 |
| VPA 00817 | DWGSB-04 | 12.9 | 02/28/11 | yes | Blue Plains | 4.198 |
| VPA 00817 | DWGSB-05 | 25.6 | 02/28/11 | yes | Blue Plains | 4.231 |
| VPA 00817 | DWGSB-06 | 15.8 | 02/28/11 | yes | Blue Plains | 5.061 |
| VPA00817 | DWGWM-05 | 39.1 | 03/31/11 | yes | Blue Plains | 2.600 |
| VPA00817 | DWGWM-05 | 39.1 | 03/31/11 | yes | SCWWA | 1.804 |
| VPA00817 | DWGWM-06 | 12.0 | 04/30/11 | yes | Blue Plains | 1.271 |
| VPA00817 | DWGWM-06 | 12.0 | 04/30/11 | yes | SCWWA | 3.541 |
| VPA00817 | DWGWM-07 | 22.3 | 04/30/11 | yes | SCWWA | 1.965 |
| VPA00817 | DWGWM-08 | 7.7 | 03/31/11 | yes | SCWWA | 4.651 |
| VPA 00817 | DWHAM-06 | 15.8 | 02/28/11 | yes | Blue Plains | 1.880 |
| VPA 00817 | DWHAM-07 | 13.1 | 02/28/11 | yes | Richmond | 3.147 |
| VPA 00817 | DWHAM-08 | 10.9 | 02/28/11 | yes | Richmond | 2.770 |
| VPA 00817 | DWHAM-09 | 26.9 | 02/28/11 | yes | Blue Plains | 3.518 |
| VPA 00817 | DWHAM-10 | 16.5 | 02/28/11 | yes | Blue Plains | 3.802 |
| VPA00817 | DWHTR-02 | 12.0 | 09/30/11 | yes | Blue Plains | 3.226 |
| VPA00817 | DWHTR-02 | 12.0 | 09/30/11 | yes | SCWWA | 0.596 |
| VPA00817 | DWJFB-01 | 12.6 | 10/31/11 | yes | Richmond | 4.122 |

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| VPA00817 | DWJFB-02 | 9.2 | 10/31/11 | yes | Richmond | 2.283 |
| VPA00817 | DWLEF-01 | 7.7 | 05/31/11 | yes | SCWWA | 2.595 |
| VPA 00817 | DWLMF-10 | 19.9 | 02/28/11 | yes | Blue Plains | 3.804 |
| VPA 00817 | DWLMF-11 | 8.9 | 02/28/11 | yes | Blue Plains | 3.780 |
| VPA 00817 | DWLMF-12 | 3.6 | 02/28/11 | yes | Blue Plains | 2.583 |
| VPA00817 | DWLMH-08 | 9.1 | 09/30/11 | yes | Richmond | 3.029 |
| VPA00817 | DWLMH-09 | 24.8 | 05/31/11 | yes | Blue Plains | 4.746 |
| VPA00817 | DWLMH-10 | 6.6 | 09/30/11 | yes | SCWWA | 3.323 |
| VPA00817 | DWLMH-12 | 10.2 | 05/31/11 | yes | Blue Plains | 4.949 |
| VPA00817 | DWLMH-13 | 16.1 | 08/31/11 | yes | Richmond | 4.409 |
| VPA00817 | DWLMH-14 | 6.0 | 06/30/11 | yes | Richmond | 3.362 |
| VPA00817 | DWLMH-15 | 11.9 | 06/30/11 | yes | Richmond | 3.029 |
| VPA00817 | DWLMH-16 | 18.7 | 11/31/11 | yes | Richmond | 3.857 |
| VPA00817 | DWLMH-19 | 14.0 | 05/31/11 | yes | Blue Plains | 3.546 |
| VPA00817 | DWLRK-01 | 17.3 | 09/30/11 | yes | Richmond | 3.509 |
| VPA 00817 | DWMHC-03 | 35.2 | 02/28/11 | yes | Blue Plains | 2.103 |
| VPA 00817 | DWMHC-11 | 17.5 | 02/28/11 | yes | Richmond | 1.360 |
| VPA00817 | DWMRF-05 | 4.7 | 05/31/11 | yes | Blue Plains | 3.293 |
| VPA00817 | DWMRF-08 | 6.5 | 05/31/11 | yes | Blue Plains | 3.572 |
| VPA00817 | DWMRF-10 | 12.1 | 05/31/11 | yes | Blue Plains | 3.838 |
| VPA00817 | DWRBZ-01 | 7.9 | 06/30/11 | yes | Blue Plains | 3.985 |
| VPA00817 | DWRBZ-03 | 14.8 | 06/30/11 | yes | Blue Plains | 3.769 |
| VPA00817 | DWRBZ-05 | 8.5 | 06/30/11 | yes | Blue Plains | 4.714 |
| VPA00817 | DWRFZ-01 | 6.2 | 04/30/11 | yes | Blue Plains | 2.460 |
| VPA00817 | DWRFZ-03 | 18.2 | 04/30/11 | yes | Richmond | 3.897 |
| VPA00817 | DWRFZ-07 | 6.2 | 04/30/11 | yes | Blue Plains | 4.919 |
| VPA00817 | DWRFZ-08 | 6.2 | 04/30/11 | yes | Blue Plains | 4.919 |
| VPA00817 | DWSGS-01 | 8.6 | 05/31/11 | yes | Blue Plains | 3.698 |
| VPA00817 | DWSGS-02 | 7.3 | 05/31/11 | yes | Blue Plains | 4.373 |
| VPA00817 | DWSGS-03 | 12.1 | 05/31/11 | yes | Blue Plains | 4.570 |
| VPA00817 | DWSSF-01 | 19.4 | 09/30/11 | yes | Richmond | 3.979 |
| VPA00817 | DWSSF-02 | 35.5 | 09/30/11 | yes | Richmond | 3.868 |
| VPA00817 | DWSSF-03 | 15.0 | 05/31/11 | yes | Blue Plains | 3.694 |
| VPA00817 | DWSSF-08 | 10.0 | 06/30/11 | yes | Blue Plains | 4.094 |
| VPA00817 | DWSSF-10 | 22.1 | 06/30/11 | yes | Blue Plains | 3.665 |
| VPA00817 | DWSSF-11 | 34.5 | 06/30/11 | yes | Blue Plains | 4.272 |
| VPA00817 | DWTLH-01 | 15.1 | 03/31/11 | yes | Blue Plains | 4.734 |
| VPA00817 | DWTLH-02 | 7.8 | 03/31/11 | yes | Blue Plains | 4.019 |
| VPA00817 | DWTLH-03 | 10.2 | 03/31/11 | yes | Blue Plains | 3.081 |
| VPA00817 | DWTLH-04 | 27.9 | 03/31/11 | yes | Blue Plains | 3.373 |
| VPA00817 | DWTLH-07 | 18.9 | 03/31/11 | yes | Blue Plains | 2.087 |
| VPA00817 | DWTLH-07 | 18.9 | 03/31/11 | yes | SCWWA | 2.586 |
| VPA00817 | DWVTA-01 | 16.5 | 05/31/11 | yes | Blue Plains | 1.420 |
| VPA00817 | DWVTA-01 | 16.5 | 05/31/11 | yes | SCWWA | 2.015 |
| VPA00817 | DWVTA-02 | 35.4 | 09/30/11 | yes | Richmond | 3.783 |
| VPA 00817 | DWWCB-07 | 46.8 | 02/28/11 | yes | Blue Plains | 1.862 |
| VPA00817 | DWWCB-20 | 29.7 | 03/31/11 | yes | Blue Plains | 3.917 |
| VPA00817 | DWWCB-32 | 11.4 | 04/30/11 | yes | Blue Plains | 2.006 |
| VPA00817 | DWWRA-01 | 7.7 | 05/31/11 | yes | Blue Plains | 3.190 |
| VPA00817 | DWWRA-02 | 15.2 | 06/30/11 | yes | Richmond | 3.774 |
| VPA00817 | DWWRA-04 | 7.1 | 06/30/11 | yes | Richmond | 2.996 |
| VPA00817 | DWWRA-06 | 20.7 | 05/31/11 | yes | Blue Plains | 3.365 |

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| VPA00817 | DWWRA-07 | 12.5 | 05/31/11 | yes | Blue Plains | 3.365 |
| VPA 00817 | DWWSJ-01 | 21.9 | 02/28/11 | yes | Blue Plains | 4.124 |
| VPA 00817 | DWWSJ-02 | 2.9 | 02/28/11 | yes | Blue Plains | 2.900 |
| VPA 00817 | DWWSJ-03 | 6.2 | 02/28/11 | yes | Blue Plains | 4.069 |
| VPA00817 | DWWYB-01 | 7.9 | 03/31/11 | yes | Blue Plains | 4.904 |
| VPA00817 | DWWYB-02 | 8.5 | 03/31/11 | yes | Blue Plains | 4.634 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA00820 | MSCHF-08 | 62.1 | 04/30/11 | yes | Blue Plains | 2.136 |
| VPA00820 | MSCHF-09 | 8.7 | 04/30/11 | yes | Blue Plains | 0.910 |
| VPA00820 | MSCHF-09 | 8.7 | 04/30/11 | yes | Bowie | 1.890 |
| VPA00820 | MSCHF-16 | 8.8 | 04/30/11 | yes | Blue Plains | 1.727 |
| VPA00820 | MSCHF-18 | 27.0 | 04/30/11 | yes | Blue Plains | 3.437 |
| VPA00820 | MSCHF-24 | 8.9 | 04/30/11 | yes | Blue Plains | 3.493 |
| VPA00820 | MSCHF-25 | 22.0 | 04/30/11 | yes | Blue Plains | 3.560 |
| VPA00820 | MSDWB-01 | 6.6 | 05/31/11 | yes | Blue Plains | 3.491 |
| VPA00820 | MSDWB-03 | 8.9 | 05/31/11 | yes | Richmond | 2.397 |
| VPA00820 | MSDWB-05 | 12.5 | 04/30/11 | yes | Blue Plains | 4.383 |
| VPA00820 | MSMBR-01 | 17.3 | 04/30/11 | yes | Blue Plains | 4.982 |
| VPA00820 | MSMBR-02 | 39.7 | 04/30/11 | yes | Blue Plains | 5.833 |
| VPA00820 | MSMBR-03 | 14.6 | 04/30/11 | yes | Blue Plains | 4.587 |
| VPA00820 | MSMBR-07 | 28.9 | 05/31/11 | yes | Blue Plains | 3.286 |
| VPA00820 | MSMBR-13 | 17.5 | 04/30/11 | yes | Blue Plains | 4.447 |
| VPA00820 | MSMBR-13 | 17.5 | 05/31/11 | yes | Blue Plains | 1.372 |
| VPA00820 | MSMBR-15 | 20.9 | 05/31/11 | yes | Blue Plains | 3.381 |
| VPA00820 | MSMBR-17 | 15.3 | 05/31/11 | yes | Blue Plains | 3.136 |
| VPA00820 | MSMBR-18 | 22.2 | 05/31/11 | yes | Blue Plains | 4.316 |
| VPA00820 | MSMBR-19 | 10.2 | 04/30/11 | yes | Blue Plains | 2.271 |
| VPA00820 | MSMBR-20 | 32.2 | 04/30/11 | yes | Blue Plains | 3.636 |
| VPA00820 | MSMBR-24 | 25.1 | 04/30/11 | yes | Blue Plains | 5.595 |
| VPA00820 | MSMBR-25 | 6.2 | 04/30/11 | yes | Blue Plains | 4.961 |
| VPA00820 | MSMBR-26 | 73.9 | 04/30/11 | yes | Blue Plains | 5.812 |
| VPA00820 | MSMBR-28 | 7.8 | 05/31/11 | yes | Blue Plains | 3.037 |
| VPA00820 | MSMBR-29 | 12.8 | 04/30/11 | yes | Blue Plains | 5.827 |
| VPA00820 | MSMBR-30 | 10.4 | 04/30/11 | yes | Blue Plains | 6.184 |
| VPA00820 | MSMBR-31 | 37.9 | 04/30/11 | yes | Blue Plains | 4.543 |
| vpa00820 | MSMLF-01 | 29.4 | 12/31/11 | yes | Blue Plains | 3.908 |
| vpa00820 | MSMLF-02 | 31.9 | 12/31/11 | yes | Blue Plains | 3.826 |
| VPA00820 | MSRLR-02 | 10.9 | 04/30/11 | yes | Blue Plains | 4.308 |
| VPA00820 | MSRLR-03 | 15.8 | 04/30/11 | yes | Blue Plains | 4.933 |
| VPA00820 | MSRRA-02 | 2.8 | 04/30/11 | yes | Blue Plains | 2.750 |
| VPA00820 | MSWEW-03 | 10.0 | 04/30/11 | yes | Blue Plains | 3.104 |
| VPA00820 | MSWEW-04 | 10.0 | 04/30/11 | yes | Blue Plains | 3.141 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA00821 | RMKLC-01 | 14.4 | 03/31/11 | yes | Blue Plains | 3.308 |
| VPA 00821 | RMSBC-01 | 17.4 | 02/28/11 | yes | Blue Plains | 4.081 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA 00823 | WMFFC-01 | 9.7 | 02/28/11 | yes | Blue Plains | 2.473 |
| VPA 00823 | WMFFC-04 | 23.0 | 02/28/11 | yes | Blue Plains | 4.114 |
| VPA 00823 | WMFFC-08 | 5.4 | 02/28/11 | yes | Blue Plains | 3.001 |
| VPA 00823 | WMFFI-15 | 9.0 | 02/28/11 | yes | Blue Plains | 4.372 |
| VPA 00823 | WMFFI-22 | 23.8 | 02/28/11 | yes | Blue Plains | 4.255 |
| VPA 00823 | WMFFI-31 | 21.5 | 02/28/11 | yes | Blue Plains | 4.026 |
| VPA 00823 | WMGET-01 | 21.5 | 02/28/11 | yes | Blue Plains | 1.817 |
| VPA 00823 | WMGET-03 | 9.6 | 02/28/11 | yes | Blue Plains | 1.652 |
| VPA 00823 | WMGET-04 | 22.6 | 02/28/11 | yes | Blue Plains | 3.128 |
| VPA 00823 | WMSBC-01 | 9.7 | 02/28/11 | yes | Blue Plains | 4.124 |
| VPA 00823 | WMSBC-04 | 14.6 | 02/28/11 | yes | Blue Plains | 4.349 |
| VPA 00823 | WMSBC-09 | 18.2 | 02/28/11 | yes | Blue Plains | 4.357 |
| VPA 00823 | WMWWT-01 | 7.5 | 02/28/11 | yes | Blue Plains | 2.129 |
| VPA 00823 | WMWWT-04 | 9.8 | 02/28/11 | yes | Blue Plains | 1.638 |
| VPA 00823 | WMYSR-01 | 11.2 | 02/28/11 | yes | Blue Plains | 4.249 |
| VPA 00823 | WMYSR-02 | 9.6 | 02/28/11 | yes | Blue Plains | 4.933 |
| VPA 00823 | WMYSR-04 | 3.6 | 02/28/11 | yes | Blue Plains | 2.222 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA01522 | FVCVM-02 | 18.2 | 06/30/11 | yes | Blue Plains | 3.941 |
| VPA01522 | FVCVM-03 | 23.7 | 06/30/11 | yes | Blue Plains | 4.063 |
| VPA01522 | FVPJY-01 | 37.0 | 06/30/11 | yes | Blue Plains | 4.088 |
| VPA01522 | FVPJY-02 | 5.3 | 06/30/11 | yes | Blue Plains | 1.509 |
| VPA01522 | FVPJY-03 | 6.4 | 06/30/11 | yes | Blue Plains | 3.744 |
| VPA01522 | FVPJY-04 | 7.6 | 06/30/11 | yes | Blue Plains | 3.151 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA01573 | WMDHS-06 | 15.3 | 03/31/11 | yes | Blue Plains | 1.556 |
| VPA01573 | WMDHS-07 | 11.8 | 03/31/11 | yes | Blue Plains | 3.992 |
| VPA01573 | WMGET-02 | 10.1 | 03/31/11 | yes | Blue Plains | 2.314 |
| VPA01573 | WMGET-03 | 9.6 | 03/31/11 | yes | Blue Plains | 0.837 |
| VPA01573 | WMJRH-01 | 46.3 | 03/31/11 | yes | Blue Plains | 4.385 |
| VPA01573 | WMJRH-02 | 17.4 | 03/31/11 | yes | Blue Plains | 4.448 |
| VPA01573 | WNDRS-01 | 8.0 | 07/31/11 | yes | Blue Plains | 4.999 |
| VPA01573 | WNDRS-02 | 8.7 | 07/31/11 | yes | Blue Plains | 4.596 |
| VPA01573 | WNDRS-03 | 19.6 | 10/31/11 | yes | Blue Plains | 3.946 |
| VPA01573 | WNDRS-04 | 12.2 | 07/31/11 | yes | Blue Plains | 3.922 |
| VPA01573 | WNDRS-05 | 7.8 | 07/31/11 | yes | Blue Plains | 4.082 |
| VPA01573 | WNDRS-06 | 14.0 | 07/31/11 | yes | Blue Plains | 3.952 |
| VPA01573 | WNDRS-07 | 6.8 | 07/31/11 | yes | North River | 1.628 |
| VPA01573 | WNLLL-01 | 24.5 | 07/31/11 | yes | Blue Plains | 1.612 |
| VPA01573 | WNLLL-02 | 41.2 | 10/31/11 | yes | Blue Plains | 3.693 |
| VPA01573 | WNLLL-02 | 41.2 | 10/31/11 | yes | Dorsey Run | 0.145 |
| VPA01573 | WNRAC-01 | 8.4 | 07/31/11 | yes | Blue Plains | 4.754 |
| VPA01573 | WNRAC-02 | 36.1 | 07/31/11 | yes | Dorsey Run | 0.167 |
| VPA01573 | WNRAC-02 | 36.1 | 07/31/11 | yes | Blue Plains | 4.853 |
| VPA01573 | WNRAC-03 | 27.4 | 07/31/11 | yes | Blue Plains | 4.956 |
| VPA01573 | WNRLF-02 | 18.6 | 10/31/11 | yes | Blue Plains | 3.646 |
| VPA01573 | WNRLF-04 | 9.6 | 10/31/11 | yes | Blue Plains | 4.772 |
| VPA01573 | WNRLF-05 | 43.6 | 10/31/11 | yes | Blue Plains | 4.047 |
| VPA01573 | WNRLF-05 | 43.6 | 10/31/11 | yes | Bowie | 0.290 |
| VPA01573 | WNRLF-07 | 33.4 | 06/30/11 | yes | Blue Plains | 3.856 |
| VPA01573 | WNRLF-11 | 29.8 | 07/31/11 | yes | Blue Plains | 5.855 |
| VPA01573 | WNRLF-14 | 18.6 | 10/31/11 | yes | Blue Plains | 4.568 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA01574 | ALAMF-01 | 14.6 | 11/31/11 | yes | Blue Plains | 4.794 |
| VPA01574 | ALAMF-04 | 16.4 | 11/31/11 | yes | Blue Plains | 2.858 |
| VPA01574 | ALCGF-02 | 9.3 | 11/31/11 | yes | Blue Plains | 2.544 |
| VPA01574 | ALGBD-01 | 16.4 | 06/30/11 | yes | Blue Plains | 5.329 |
| VPA01574 | ALPDF-07 | 12.8 | 06/30/11 | yes | Blue Plains | 3.090 |
| VPA01574 | ALPDF-08 | 22.9 | 06/30/11 | yes | Blue Plains | 5.232 |
| VPA01574 | ALPMC-06 | 14.6 | 11/31/11 | yes | Blue Plains | 3.686 |
| VPA01574 | ALPMC-08 | 37.4 | 11/31/11 | yes | Blue Plains | 3.943 |
| VPA01574 | ALPMC-10 | 18.4 | 11/31/11 | yes | Blue Plains | 3.811 |
| VPA01574 | ALPMC-21 | 43.6 | 11/31/11 | yes | Blue Plains | 3.922 |
| VPA01574 | ALPMC-23 | 8.7 | 11/31/11 | yes | Blue Plains | 4.347 |
| VPA01574 | ALPMC-24 | 26.6 | 11/31/11 | yes | Blue Plains | 4.047 |
| VPA01574 | ALRLF-01 | 19.9 | 06/30/11 | yes | Blue Plains | 4.028 |
| VPA01574 | ALRLF-05 | 27.0 | 06/30/11 | yes | Blue Plains | 4.451 |
| VPA01574 | ALSMP-06 | 39.1 | 11/31/11 | yes | Blue Plains | 2.360 |
| VPA01574 | ALVFS-01 | 16.7 | 11/31/11 | yes | Blue Plains | 4.655 |
| VPA01574 | ALVFS-03 | 10.4 | 11/31/11 | yes | Blue Plains | 2.214 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|------------------|---------------------|
| VPA01577 | GRAEF-02 | 9.6 | 07/31/11 | yes | Blue Plains | 4.237 |
| VPA01577 | GRAEF-04 | 9.5 | 07/31/11 | yes | North River | 1.131 |
| VPA01577 | GRAEF-06 | 26.0 | 07/31/11 | yes | North River | 1.292 |
| VPA01577 | GRAEF-08 | 15.0 | 07/31/11 | yes | Blue Plains | 3.690 |
| VPA01577 | GRAEF-09 | 11.7 | 07/31/11 | yes | North River | 1.918 |
| VPA01577 | GRAMF-01 | 29.8 | 11/31/11 | yes | Blue Plains | 3.145 |
| vpa01577 | GRBDD-01 | 6.7 | 12/31/11 | yes | Blue Plains | 3.352 |
| vpa01577 | GRBDD-02 | 3.1 | 12/31/11 | yes | Blue Plains | 2.547 |
| vpa01577 | GRBDD-03 | 5.4 | 12/31/11 | yes | Blue Plains | 2.827 |
| vpa01577 | GRBDD-04 | 2.0 | 12/31/11 | yes | Blue Plains | 3.866 |
| vpa01577 | GRBDD-05 | 9.7 | 12/31/11 | yes | Blue Plains | 3.956 |
| VPA01577 | GRBDD-07 | 7.4 | 07/31/11 | yes | Blue Plains | 3.222 |
| VPA01577 | GRBDD-08 | 8.7 | 07/31/11 | yes | Blue Plains | 3.758 |
| VPA01577 | GRBDD-09 | 7.3 | 07/31/11 | yes | Blue Plains | 2.113 |
| VPA01577 | GRBDD-09 | 7.3 | 07/31/11 | yes | Dorsey Run | 0.876 |
| VPA01577 | GRBDD-10 | 10.8 | 07/31/11 | yes | Blue Plains | 3.696 |
| VPA01577 | GRBDD-11 | 13.6 | 07/31/11 | yes | Blue Plains | 2.969 |
| VPA01577 | GRBDD-11 | 13.6 | 07/31/11 | yes | Bowie | 0.836 |
| VPA01577 | GRBDD-12 | 12.6 | 07/31/11 | yes | Blue Plains | 3.134 |
| VPA01577 | GRBDD-12 | 12.6 | 07/31/11 | yes | Freedom District | 0.461 |
| VPA01577 | GRCFE-01 | 23.4 | 07/31/11 | yes | Blue Plains | 2.357 |
| VPA01577 | GRCFE-01 | 23.4 | 07/31/11 | yes | Freedom District | 0.811 |
| VPA01577 | GRCFE-05 | 16.8 | 07/31/11 | yes | Blue Plains | 3.296 |
| VPA01577 | GRCFE-06 | 4.7 | 07/31/11 | yes | Blue Plains | 3.374 |
| VPA01577 | GRCFE-07 | 3.0 | 07/31/11 | yes | Blue Plains | 2.679 |
| VPA01577 | GRCLM-01 | 13.6 | 07/31/11 | yes | Blue Plains | 1.765 |
| VPA01577 | GRHTE-01 | 10.8 | 07/31/11 | yes | Blue Plains | 4.383 |
| VPA01577 | GRHTE-02 | 2.0 | 07/31/11 | yes | Blue Plains | 4.096 |
| VPA 01577 | GRMBF-03 | 7.6 | 02/28/11 | yes | Blue Plains | 4.105 |
| VPA01577 | GRRHM-01 | 9.6 | 09/30/11 | yes | Blue Plains | 3.182 |
| VPA01577 | GRRHM-04 | 7.3 | 09/30/11 | yes | Blue Plains | 3.264 |
| VPA01577 | GRRHM-05 | 10.6 | 09/30/11 | yes | Blue Plains | 3.613 |
| VPA01577 | GRRHR-01 | 10.3 | 07/31/11 | yes | Blue Plains | 3.891 |
| VPA01577 | GRRHR-03 | 9.0 | 07/31/11 | yes | Blue Plains | 3.544 |
| VPA01577 | GRRHR-04 | 13.0 | 07/31/11 | yes | Blue Plains | 3.680 |
| VPA01577 | GRRLD-03 | 13.5 | 07/31/11 | yes | Blue Plains | 4.109 |
| VPA01577 | GRRLD-06 | 14.6 | 07/31/11 | yes | FQWSA | 0.995 |
| VPA01577 | GRRLD-06 | 14.6 | 07/31/11 | yes | North River | 0.270 |
| VPA01577 | GRRLD-08 | 14.3 | 07/31/11 | yes | Blue Plains | 3.890 |
| VPA01577 | GRRLD-10 | 19.0 | 07/31/11 | yes | Blue Plains | 3.329 |
| VPA01577 | GRTGB-01 | 10.2 | 09/30/11 | yes | Blue Plains | 3.043 |
| VPA01577 | GRTGB-02 | 16.7 | 10/31/11 | yes | Blue Plains | 2.234 |
| vpa01577 | GRTGB-03 | 13.7 | 12/31/11 | yes | North River | 1.707 |
| vpa01577 | GRTGB-03 | 13.7 | 12/31/11 | yes | Purcellville | 0.364 |
| vpa01577 | GRTGB-04 | 4.9 | 12/31/11 | yes | North River | 1.476 |
| vpa01577 | GRTGB-05 | 5.0 | 12/31/11 | yes | FQWSA | 0.969 |
| VPA 01577 | GRTMG-01 | 13.1 | 01/31/11 | yes | Blue Plains | 3.652 |
| VPA 01577 | GRTMG-01 | 13.1 | 01/31/11 | yes | Bowie | 0.846 |
| VPA 01577 | GRTMG-03 | 7.8 | 02/28/11 | yes | Bowie | 2.864 |
| VPA 01577 | GRTMG-05 | 4.6 | 02/28/11 | yes | Blue Plains | 3.512 |
| VPA 01577 | GRTMG-06 | 10.2 | 02/28/11 | yes | Blue Plains | 2.290 |
| VPA 01577 | GRTMG-06 | 10.2 | 02/28/11 | yes | Bowie | 1.087 |

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|-----------|----------------------|-----------------------|----------------|-----------|------------------|---------------------|
| VPA01579 | SHWGE-02 | 17.3 | 07/31/11 | yes | Blue Plains | 4.144 |
| VPA01579 | SHWGE-03 | 13.4 | 07/31/11 | yes | Blue Plains | 4.729 |
| VPA01579 | SHWGE-04 | 9.6 | 07/31/11 | yes | Blue Plains | 5.019 |
| VPA01579 | SHWGE-05 | 8.3 | 07/31/11 | yes | Blue Plains | 4.754 |
| VPA01579 | SHWGE-06 | 12.2 | 07/31/11 | yes | Blue Plains | 4.513 |
| VPA01579 | SHWGE-07 | 10.1 | 07/31/11 | yes | Blue Plains | 3.147 |

| Permit No | Field Desingation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|---------------------|---------------------|
| VPA03003 | NWCWH-01 | 13.0 | 01/31/11 | yes | SCWWA | 2.771 |
| VPA03003 | NWCWH-02 | 4.7 | 01/31/11 | yes | SCWWA | 3.023 |
| VPA03003 | NWCWH-03 | 3.3 | 01/31/11 | yes | SCWWA | 2.050 |
| VPA03003 | NWCWH-04 | 5.0 | 01/31/11 | yes | SCWWA | 2.872 |
| VPA03003 | NWCWH-05 | 5.0 | 01/31/11 | yes | SCWWA | 2.790 |
| VPA03003 | NWDRF-03 | 13.4 | 09/30/11 | yes | SCWWA | 2.218 |
| VPA03003 | NWETA-01 | 8.8 | 12/31/11 | yes | Blue Plains | 3.605 |
| VPA03003 | NWETA-03 | 18.2 | 12/31/11 | yes | Blue Plains | 3.798 |
| VPA03003 | NWETA-08 | 11.6 | 12/31/11 | yes | Richmond | 3.182 |
| VPA03003 | NWFCE-05 | 22.4 | 10/31/11 | yes | Richmond | 3.606 |
| VPA03003 | NWFCE-06 | 34.2 | 12/31/11 | yes | Richmond | 2.857 |
| VPA03003 | NWFCE-07 | 10.3 | 10/31/11 | yes | Richmond | 2.144 |
| VPA03003 | NWFCE-08 | 5.3 | 12/31/11 | yes | Richmond | 2.672 |
| VPA03003 | NWKCR-01 | 8.9 | 10/31/11 | yes | Richmond | 4.059 |
| VPA03003 | NWKCR-06 | 4.6 | 11/31/11 | yes | SCWWA | 3.498 |
| VPA03003 | NWKCR-07 | 15.7 | 11/31/11 | yes | Richmond | 2.832 |
| VPA03003 | NWLEW-01 | 15.0 | 12/31/11 | yes | Richmond | 3.418 |
| VPA03003 | NWLEW-02 | 12.5 | 12/31/11 | yes | Richmond | 3.500 |
| VPA03003 | NWLEW-03 | 8.9 | 12/31/11 | yes | Richmond | 2.504 |
| VPA03003 | NWLEW-06 | 4.4 | 12/31/11 | yes | Blue Plains | 3.436 |
| VPA03003 | NWLEW-07 | 4.3 | 12/31/11 | yes | Richmond | 3.378 |
| VPA03003 | NWLEW-08 | 24.0 | 12/31/11 | yes | Richmond | 3.317 |
| VPA03003 | NWLEW-10 | 12.2 | 12/31/11 | yes | Blue Plains | 4.367 |
| VPA03003 | NWLRC-01 | 10.8 | 11/31/11 | yes | SCWWA | 3.646 |
| VPA03003 | NWLRC-02 | 8.7 | 11/31/11 | yes | SCWWA | 3.523 |
| VPA03003 | NWLRC-03 | 10.0 | 11/31/11 | yes | Blue Plains | 3.962 |
| VPA03003 | NWLRC-03 | 10.0 | 11/31/11 | yes | SCWWA | 0.783 |
| VPA03003 | NWLRC-04 | 7.3 | 11/31/11 | yes | Blue Plains | 3.257 |
| VPA03003 | NWNCF-06 | 28.7 | 10/31/11 | yes | Blue Plains | 3.704 |
| VPA03003 | NWNCF-07 | 29.0 | 10/31/11 | yes | Richmond | 3.050 |
| VPA03003 | NWNCF-08 | 9.4 | 10/31/11 | yes | Richmond | 3.171 |
| VPA03003 | NWNCF-09 | 18.5 | 10/31/11 | yes | Blue Plains | 3.735 |
| VPA03003 | NWNCF-15 | 7.9 | 10/31/11 | yes | Richmond | 2.848 |
| VPA03003 | NWNCF-17 | 4.5 | 10/31/11 | yes | Richmond | 3.056 |
| VPA03003 | NWWTH-01 | 9.6 | 11/31/11 | yes | Richmond | 3.102 |
| VPA03003 | NWWTH-02 | 17.7 | 11/31/11 | yes | Blue Plains | 2.565 |
| VPA03003 | NWWTH-02 | 17.7 | 11/31/11 | yes | SCWWA | 1.400 |
| VPA03003 | NWWTH-03 | 9.5 | 11/31/11 | yes | Richmond | 3.124 |
| VPA03003 | NWWTH-04 | 8.2 | 11/31/11 | yes | Richmond | 2.798 |
| VPA03003 | NWWTH-07 | 2.0 | 11/31/11 | yes | SCWWA | 3.978 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|----------------|-----------|------------------|---------------------|
| VPA03010 | LUDLH-05 | 28.0 | 12/31/11 | yes | Blue Plains | 1.127 |
| VPA03010 | LUDLH-05 | 28.0 | 12/31/11 | yes | SCWWA | 0.836 |
| VPA03010 | LULJV-04 | 7.3 | 10/31/11 | yes | Richmond | 2.969 |
| VPA03010 | LULJV-06 | 16.0 | 10/31/11 | yes | Richmond | 3.252 |
| VPA03010 | LULJV-07 | 18.0 | 10/31/11 | yes | Richmond | 3.217 |
| VPA03010 | LULJV-08 | 11.2 | 10/31/11 | yes | Richmond | 1.962 |
| VPA03010 | LUMRA-04 | 18.9 | 12/31/11 | yes | Richmond | 3.216 |
| VPA03010 | LUNES-01 | 17.6 | 01/31/11 | yes | Blue Plains | 3.443 |
| VPA03010 | LUNES-04 | 11.2 | 01/31/11 | yes | Blue Plains | 4.058 |
| VPA03010 | LUNHJ-01 | 23.7 | 12/31/11 | yes | Blue Plains | 2.579 |
| VPA03010 | LUNHJ-03 | 3.0 | 12/31/11 | yes | Blue Plains | 2.634 |
| VPA03010 | LUNHJ-04 | 8.0 | 12/31/11 | yes | Blue Plains | 2.916 |
| VPA03010 | LUNHJ-05 | 8.0 | 12/31/11 | yes | Blue Plains | 2.867 |
| VPA03010 | LURAH-05 | 7.0 | 12/31/11 | yes | Richmond | 3.084 |
| VPA03010 | LUWCA-07 | 35.7 | 11/31/11 | yes | Richmond | 2.757 |
| VPA03010 | LUWCA-09 | 34.5 | 11/31/11 | yes | Richmond | 2.903 |
| VPA03010 | LUWMA-01 | 41.0 | 12/31/11 | yes | SCWWA | 0.960 |
| VPA03010 | LUWMA-01 | 41.0 | 12/31/11 | yes | Blue Plains | 1.539 |
| VPA03010 | LUWMA-03 | 8.6 | 12/31/11 | yes | SCWWA | 3.764 |

| Permit No | Field Desingation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| BUR 04 | FQWRF-09 | 30.0 | 01/31/11 | no | North River | 0.146 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| BUR 06 | ORKRH-03 | 5.2 | 01/31/11 | no | North River | 0.808 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| BUR 69 | CUSCL-06 | 22.0 | 12/31/11 | no | Little Falls Run | 1.284 |
| BUR 69 | CUSCL-03 | 15.4 | 02/28/11 | no | Blue Plains | 2.098 |
| BUR 69 | CUSCL-06 | 22.2 | 02/28/11 | no | Blue Plains | 1.068 |
| BUR 69 | CUSCL-06 | 22.2 | 02/28/11 | no | Dorsey Run | 1.469 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| BUR104 | NWCCB-01 | 11.6 | 08/31/11 | no | Richmond | 3.037 |
| BUR104 | NWCCB-02 | 16.5 | 08/31/11 | no | Richmond | 5.132 |
| BUR104 | NWDRF-03 | 13.4 | 08/31/11 | no | SCWWA | 2.110 |
| BUR104 | NWJAW-02 | 3.0 | 02/28/11 | no | Richmond | 2.094 |
| BUR104 | NWRCD-03 | 23.0 | 02/28/11 | no | Blue Plains | 3.861 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| BUR 116 | MACHE-22 | 26.5 | 02/28/11 | no | Blue Plains | 2.694 |
| BUR 116 | MACHE-22 | 26.5 | 02/28/11 | no | North River | 0.854 |
| BUR 116 | MACHE-24 | 6.4 | 02/28/11 | no | Blue Plains | 2.472 |
| BUR 116 | MACHE-24 | 6.4 | 02/28/11 | no | Dorsey Run | 1.046 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| BUR 120 | BRNAC-12 | 3.2 | 07/31/11 | no | SCWWA | 4.464 |
| BUR 120 | BRNAC-04 | 3.0 | 06/30/11 | no | SCWWA | 4.917 |
| BUR 120 | BRNAC-06 | 4.0 | 06/30/11 | no | SCWWA | 5.667 |
| BUR 120 | BRNAC-07 | 5.6 | 06/30/11 | no | SCWWA | 4.103 |
| BUR 120 | BRNAC-10 | 4.3 | 06/30/11 | no | SCWWA | 3.708 |
| BUR 120 | BRNAC-14 | 40.5 | 06/30/11 | no | Blue Plains | 4.543 |
| BUR 120 | BRMWE-02 | 12.9 | 05/31/11 | no | Blue Plains | 4.565 |
| BUR 120 | BRFTB-03 | 7.8 | 10/31/11 | no | SCWWA | 3.025 |
| BUR 120 | BRFTB-06 | 13.3 | 10/31/11 | no | Richmond | 3.245 |
| BUR 120 | BRSDH-04 | 27.5 | 10/31/11 | no | Blue Plains | 3.144 |
| BUR 120 | BRWCT-01 | 12.2 | 10/31/11 | no | Blue Plains | 4.322 |
| BUR 120 | BRWCT-02 | 4.0 | 10/31/11 | no | Blue Plains | 1.883 |
| BUR 120 | BRWCT-03 | 5.3 | 10/31/11 | no | Blue Plains | 2.842 |
| BUR 120 | BRWCT-10 | 3.3 | 10/31/11 | no | Blue Plains | 2.295 |
| BUR 120 | BRWCT-11 | 22.5 | 10/31/11 | no | Blue Plains | 2.385 |

| Permit No | Field Desingation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| BUR 135 | SXVWC-01 | 30.0 | 06/30/11 | no | Richmond | 3.288 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA00054 | FQMGE-01 | 10.6 | 06/30/11 | no | Blue Plains | 1.507 |
| VPA00054 | FQMGE-01 | 10.6 | 06/30/11 | no | Bowie | 1.061 |
| VPA00054 | FQMGE-01 | 10.6 | 06/30/11 | no | MCI | 1.182 |
| VPA00054 | FQMGE-02 | 12.7 | 06/30/11 | no | Blue Plains | 0.645 |
| VPA00054 | FQMGE-02 | 12.7 | 06/30/11 | no | MCI | 3.343 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA00056 | CRCAC-04 | 37.3 | 09/30/11 | no | Little Falls Run | 1.204 |
| VPA00056 | CRCAC-04 | 37.3 | 09/30/11 | no | Richmond | 1.048 |
| VPA00056 | CRJAG-08 | 12.4 | 09/30/11 | no | Blue Plains | 4.292 |
| VPA00056 | CRJAG-09 | 14.2 | 09/30/11 | no | Little Falls Run | 2.461 |
| VPA00056 | CRJAG-09 | 14.2 | 09/30/11 | no | Richmond | 0.947 |
| VPA00056 | CRJAG-14 | 7.0 | 01/31/11 | no | Blue Plains | 3.426 |
| VPA00056 | CRRFU-05 | 20.6 | 05/31/11 | no | Blue Plains | 5.741 |
| VPA00056 | CRRFU-24 | 12.8 | 05/31/11 | no | Blue Plains | 2.418 |
| VPA00056 | CRWBB-02 | 2.7 | 01/31/11 | no | Blue Plains | 3.021 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA00057 | CUAPL-01 | 35.2 | 01/31/11 | no | Blue Plains | 3.213 |
| VPA00057 | CUATK-01 | 7.3 | 08/31/11 | no | Culpeper | 2.354 |
| VPA00057 | CUATK-07 | 6.5 | 08/31/11 | no | Culpeper | 2.644 |
| VPA00057 | CUBEY-01 | 33.7 | 08/31/11 | no | Blue Plains | 4.250 |
| VPA00057 | CUBEY-02 | 2.1 | 08/31/11 | no | Blue Plains | 3.782 |
| VPA00057 | CUBEY-03 | 1.2 | 08/31/11 | no | Blue Plains | 4.200 |
| VPA00057 | CUBMF-14B | 6.0 | 12/31/11 | no | Blue Plains | 3.867 |
| VPA00057 | CUCCC-01 | 15.4 | 08/31/11 | no | Blue Plains | 4.042 |
| VPA00057 | CUCCC-02 | 18.4 | 08/31/11 | no | Blue Plains | 4.259 |
| VPA00057 | CUCCC-03 | 18.8 | 08/31/11 | no | Blue Plains | 3.702 |
| VPA00057 | CUCCC-03 | 18.8 | 08/31/11 | no | Dorsey Run | 0.329 |
| VPA00057 | CUCCC-04 | 3.4 | 08/31/11 | no | Blue Plains | 2.330 |
| VPA00057 | CUCCC-05 | 13.2 | 08/31/11 | no | Blue Plains | 4.132 |
| VPA00057 | CUCCC-07 | 19.6 | 08/31/11 | no | Blue Plains | 4.017 |
| VPA00057 | CUCCC-08 | 11.4 | 08/31/11 | no | Blue Plains | 4.045 |
| VPA00057 | CUCCC-10 | 6.5 | 08/31/11 | no | Blue Plains | 3.658 |
| VPA00057 | CUCCC-11 | 10.4 | 08/31/11 | no | Blue Plains | 4.546 |
| VPA00057 | CUCCC-12 | 6.2 | 08/31/11 | no | Blue Plains | 3.769 |
| VPA00057 | CUCCC-13 | 14.3 | 08/31/11 | no | Blue Plains | 3.776 |
| VPA00057 | CUCCC-14 | 18.2 | 08/31/11 | no | Blue Plains | 4.289 |
| VPA00057 | CUCCJ-01 | 21.5 | 11/31/11 | no | Bowie | 0.455 |
| VPA00057 | CUCCJ-02 | 22.0 | 11/31/11 | no | Little Falls Run | 2.120 |
| VPA00057 | CUCCJ-04 | 16.0 | 11/31/11 | no | Warrenton | 1.948 |
| VPA00057 | CUCCJ-04 | 6.0 | 10/31/11 | no | Dorsey Run | 1.118 |
| VPA00057 | CUCCJ-04 | 6.0 | 10/31/11 | no | FQWSA | 2.240 |
| VPA00057 | CUCCJ-05 | 19.0 | 11/31/11 | no | Warrenton | 2.734 |
| VPA00057 | CUCCJ-06 | 41.6 | 11/31/11 | no | Little Falls Run | 1.218 |
| VPA00057 | CUCCJ-06 | 41.6 | 11/31/11 | no | FQWSA | 0.233 |
| VPA00057 | CUCCJ-06 | 10.3 | 10/31/11 | no | Bowie | 1.559 |
| VPA00057 | CUCCJ-06 | 10.3 | 10/31/11 | no | Little Falls Run | 0.886 |
| VPA00057 | CUGWF-01 | 17.7 | 08/31/11 | no | Blue Plains | 4.882 |
| VPA00057 | CUGWF-01 | 17.7 | 08/31/11 | no | Freedom District | 0.190 |
| VPA00057 | CUGWF-03 | 6.8 | 08/31/11 | no | Blue Plains | 2.312 |
| VPA00057 | CUGWF-04 | 15.8 | 08/31/11 | no | Blue Plains | 2.999 |
| VPA00057 | CUGWF-08 | 5.9 | 08/31/11 | no | Blue Plains | 3.952 |
| VPA00057 | CUGWF-09 | 4.1 | 08/31/11 | no | Blue Plains | 3.734 |
| VPA00057 | CUHCD-01 | 26.0 | 11/31/11 | no | Blue Plains | 3.278 |
| VPA00057 | CUISF-03 | 11.3 | 05/31/11 | no | Blue Plains | 2.096 |
| VPA00057 | CUJDS-06 | 42.6 | 02/28/11 | no | Blue Plains | 4.248 |
| VPA00057 | CUJDS-06 | 42.6 | 02/28/11 | no | Dorsey Run | 0.159 |
| VPA00057 | CUJDS-08 | 21.5 | 03/31/11 | no | Blue Plains | 1.110 |
| VPA00057 | CUJDS-08 | 21.5 | 03/31/11 | no | Bowie | 1.469 |
| VPA00057 | CUJDS-08 | 21.5 | 03/31/11 | no | Dillwyn | 0.040 |
| VPA00057 | CUJDS-08 | 21.5 | 03/31/11 | no | Dorsey Run | 0.346 |
| VPA00057 | CUJDS-21 | 33.5 | 03/31/11 | no | Blue Plains | 4.244 |
| VPA00057 | CUJDS-26 | 11.5 | 03/31/11 | no | Blue Plains | 3.411 |
| VPA00057 | CUJHB-04 | 8.1 | 09/30/11 | no | Blue Plains | 4.763 |
| VPA00057 | CUKWD-05 | 22.4 | 08/31/11 | no | Blue Plains | 2.795 |
| VPA00057 | CUKWD-05 | 22.4 | 08/31/11 | no | Freedom District | 0.289 |
| VPA00057 | CUKWD-05 | 9.0 | 07/31/11 | no | Blue Plains | 2.654 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA00057 | CUKWD-05 | 9.0 | 07/31/11 | no | Bowie | 1.451 |
| VPA00057 | CUKWD-05 | 9.0 | 07/31/11 | no | Dorsey Run | 0.664 |
| VPA00057 | CUKWD-05 | 9.0 | 07/31/11 | no | Freedom District | 1.397 |
| VPA00057 | CUPWY-01 | 16.5 | 08/31/11 | no | Blue Plains | 2.852 |
| VPA00057 | CUPWY-01 | 16.5 | 08/31/11 | no | Bowie | 0.644 |
| VPA00057 | CUPWY-01 | 16.5 | 08/31/11 | no | Dorsey Run | 0.349 |
| VPA00057 | CURCT-13 | 18.2 | 01/31/11 | no | FQWSA | 0.323 |
| VPA00057 | CURCT-13 | 18.2 | 01/31/11 | no | Lake of Woods | 2.803 |
| VPA00057 | CURCT-14 | 38.0 | 02/28/11 | no | FQWSA | 0.442 |
| VPA00057 | CURCT-14 | 38.0 | 02/28/11 | no | Purcellville | 0.399 |
| VPA00057 | CURCT-14 | 12.2 | 01/31/11 | no | North River | 1.992 |
| VPA00057 | CUREB-11 | 11.5 | 08/31/11 | no | Blue Plains | 4.748 |
| VPA00057 | CUREB-13 | 12.6 | 08/31/11 | no | Blue Plains | 3.689 |
| VPA00057 | CURED-04 | 22.5 | 08/31/11 | no | FQWSA | 0.418 |
| VPA00057 | CURED-04 | 22.5 | 08/31/11 | no | North River | 1.041 |
| VPA00057 | CURED-04 | 22.5 | 08/31/11 | no | Richmond | 1.522 |
| VPA00057 | CUSFF-03 | 28.0 | 12/31/11 | no | Blue Plains | 3.022 |
| VPA00057 | CUTOM-01 | 13.2 | 08/31/11 | no | Blue Plains | 5.929 |
| VPA00057 | CUTOM-01 | 13.2 | 08/31/11 | no | Dorsey Run | 0.419 |
| VPA00057 | CUTOM-02 | 10.2 | 07/31/11 | no | Blue Plains | 4.598 |
| VPA00057 | CUTOM-02 | 10.2 | 07/31/11 | no | Dorsey Run | 0.671 |
| VPA00057 | CUTOM-03 | 29.0 | 08/31/11 | no | Blue Plains | 3.813 |
| VPA00057 | CUTOM-03 | 29.0 | 08/31/11 | no | Freedom District | 0.456 |
| VPA00057 | CUTOM-04 | 11.5 | 08/31/11 | no | Blue Plains | 2.064 |
| VPA00057 | CUTOM-04 | 11.5 | 08/31/11 | no | Freedom District | 0.922 |
| VPA00057 | CUTPH-01 | 21.5 | 08/31/11 | no | Blue Plains | 4.002 |
| VPA00057 | CUTPH-05 | 24.0 | 08/31/11 | no | Blue Plains | 4.927 |
| VPA00057 | CUTPH-05 | 24.0 | 08/31/11 | no | FQWSA | 0.391 |
| VPA00057 | CUVXV-01 | 9.3 | 06/30/11 | no | Blue Plains | 2.552 |
| VPA00057 | CUVXV-01 | 9.3 | 06/30/11 | no | Dorsey Run | 0.579 |
| VPA00057 | CUVXV-01 | 9.3 | 06/30/11 | no | Freedom District | 1.307 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA00058 | SPRED-01 | 10.3 | 03/31/11 | no | Richmond | 1.765 |
| VPA00058 | SPRED-02 | 44.3 | 03/31/11 | no | Blue Plains | 2.115 |
| VPA00058 | SPRED-05 | 13.1 | 03/31/11 | no | Richmond | 1.866 |
| VPA00058 | SPRED-06 | 12.2 | 03/31/11 | no | Richmond | 1.975 |
| VPA00058 | SPRED-07 | 22.4 | 03/31/11 | no | Richmond | 1.842 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA00060 | ORBRF-02 | 17.4 | 10/31/11 | no | Blue Plains | 1.775 |
| VPA00060 | ORBRF-02 | 17.4 | 10/31/11 | no | Bowie | 0.882 |
| VPA00060 | ORBRF-02 | 17.4 | 10/31/11 | no | Dorsey Run | 0.344 |
| VPA00060 | ORBRF-04 | 14.1 | 09/30/11 | no | Blue Plains | 3.249 |
| VPA00060 | ORBRF-06 | 10.0 | 10/31/11 | no | Blue Plains | 3.144 |
| VPA00060 | ORBRF-08 | 21.8 | 10/31/11 | no | Blue Plains | 2.073 |
| VPA00060 | ORBRF-08 | 21.8 | 10/31/11 | no | Freedom District | 1.474 |
| VPA00060 | ORBRF-09 | 16.2 | 09/30/11 | no | Blue Plains | 3.255 |
| VPA00060 | ORBRF-10A | 7.1 | 10/31/11 | no | Blue Plains | 3.183 |
| VPA00060 | ORCWR-04 | 37.5 | 10/31/11 | no | Blue Plains | 3.144 |
| VPA00060 | ORCWR-05 | 9.8 | 10/31/11 | no | Blue Plains | 3.208 |
| VPA00060 | OREVB-06 | 7.9 | 01/31/11 | no | Blue Plains | 1.972 |
| VPA00060 | ORFTF-01 | 12.1 | 09/30/11 | no | Blue Plains | 1.938 |
| VPA00060 | ORFTF-02 | 3.8 | 09/30/11 | no | Blue Plains | 1.997 |
| VPA00060 | ORFTF-02 | 3.8 | 09/30/11 | no | Dorsey Run | 1.656 |
| VPA00060 | ORFTF-03 | 16.4 | 09/30/11 | no | Blue Plains | 3.746 |
| VPA00060 | ORFTF-03 | 16.4 | 09/30/11 | no | FQWSA | 0.317 |
| VPA00060 | ORFTF-04 | 3.8 | 09/30/11 | no | FQWSA | 1.301 |
| VPA00060 | ORJAC-01 | 9.0 | 06/30/11 | no | Blue Plains | 4.490 |
| VPA00060 | ORJAP-01 | 1.0 | 07/31/11 | no | Blue Plains | 4.075 |
| VPA00060 | ORJAP-02 | 6.0 | 07/31/11 | no | Blue Plains | 5.286 |
| VPA00060 | ORJAP-04 | 7.8 | 07/31/11 | no | Blue Plains | 3.559 |
| VPA00060 | ORJWG-14 | 11.2 | 05/31/11 | no | Blue Plains | 3.538 |
| VPA00060 | ORLWB-01 | 14.2 | 01/31/11 | no | Blue Plains | 3.911 |
| VPA00060 | ORLWB-04 | 6.8 | 01/31/11 | no | Blue Plains | 2.366 |
| VPA00060 | ORLWB-04 | 6.8 | 01/31/11 | no | Dorsey Run | 1.079 |
| VPA00060 | ORMFL-03 | 20.9 | 06/30/11 | no | Blue Plains | 4.603 |
| VPA00060 | ORMFL-05 | 14.6 | 06/30/11 | no | Blue Plains | 4.438 |
| VPA00060 | ORMFL-05 | 14.6 | 06/30/11 | no | Dillwyn | 0.024 |
| VPA00060 | ORREF-05 | 18.0 | 05/31/11 | no | North River | 2.199 |
| VPA00060 | ORRPH-30 | 21.5 | 04/30/11 | no | Freedom District | 1.337 |
| VPA00060 | ORRPH-30 | 21.5 | 04/30/11 | no | North River | 1.424 |
| VPA00060 | ORRPH-30 | 21.5 | 04/30/11 | no | Purcellville | 1.116 |
| VPA00060 | ORVRJ-11 | 35.5 | 01/31/11 | no | FQWSA | 0.513 |
| VPA00060 | ORVRJ-11 | 35.5 | 01/31/11 | no | North River | 0.985 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA00801 | HAGVL-03 | 9.6 | 07/31/11 | no | Richmond | 2.980 |
| VPA00801 | HAGVL-04 | 27.7 | 07/31/11 | no | Richmond | 5.121 |
| VPA00801 | HAGVL-05 | 16.2 | 07/31/11 | no | Richmond | 3.054 |
| VPA00801 | HAGVL-06 | 14.2 | 07/31/11 | no | Richmond | 2.956 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA 00804 | EXGAH-04 | 6.8 | 02/28/11 | no | Blue Plains | 3.404 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA00814 | LCGAF-03 | 3.8 | 03/31/11 | no | Blue Plains | 4.138 |
| VPA00814 | LCITH-01 | 10.0 | 03/31/11 | no | Blue Plains | 3.141 |
| VPA00814 | LCITH-02 | 11.3 | 03/31/11 | no | Blue Plains | 2.780 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA 00817 | DWASE-01 | 8.5 | 02/28/11 | no | Blue Plains | 2.612 |
| VPA 00817 | DWCVS-01 | 51.3 | 02/28/11 | no | Blue Plains | 2.450 |
| VPA 00817 | DWCVS-01 | 51.3 | 02/28/11 | no | SCWWA | 1.341 |
| VPA00817 | DWCVS-01 | 51.3 | 03/31/11 | no | Blue Plains | 1.197 |
| VPA00817 | DWCVS-02 | 21.7 | 03/31/11 | no | Blue Plains | 0.707 |
| VPA00817 | DWCVS-02 | 21.7 | 03/31/11 | no | SCWWA | 0.631 |
| VPA00817 | DWCVS-03 | 26.6 | 03/31/11 | no | SCWWA | 3.708 |
| VPA00817 | DWDSS-05 | 12.1 | 05/31/11 | no | Richmond | 2.226 |
| VPA00817 | DWDSS-10 | 18.0 | 05/31/11 | no | Richmond | 2.905 |
| VPA00817 | DWGMM-04 | 8.6 | 03/31/11 | no | Richmond | 2.791 |
| VPA00817 | DWGPG-01 | 14.7 | 04/30/11 | no | Blue Plains | 1.556 |
| VPA00817 | DWGPG-01 | 14.7 | 04/30/11 | no | SCWWA | 1.473 |
| VPA00817 | DWJJR-01 | 36.8 | 05/31/11 | no | Richmond | 3.041 |
| VPA00817 | DWJJR-02 | 5.7 | 05/31/11 | no | Richmond | 2.491 |
| VPA00817 | DWRFZ-02 | 6.7 | 04/30/11 | no | Blue Plains | 5.690 |
| VPA00817 | DWRFZ-04 | 9.0 | 04/30/11 | no | Blue Plains | 4.236 |
| VPA00817 | DWRFZ-06 | 5.3 | 04/30/11 | no | Blue Plains | 2.877 |
| VPA 00817 | DWWCB-02 | 30.8 | 02/28/11 | no | Blue Plains | 3.233 |
| VPA00817 | DWWRA-05 | 6.4 | 06/30/11 | no | Richmond | 4.298 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA00820 | MSCHF-02A | 8.7 | 04/30/11 | no | Blue Plains | 3.57 |
| VPA00820 | MSRLR-04 | 5.1 | 04/30/11 | no | Blue Plains | 6.24 |
| VPA00820 | MSRLR-05 | 9.2 | 04/30/11 | no | Blue Plains | 4.37 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA 00823 | WMFFC-03 | 5.2 | 02/28/11 | no | Blue Plains | 3.104 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA01522 | FVBFB-01 | 18.3 | 06/30/11 | no | Blue Plains | 4.831 |
| VPA01522 | FVBFB-02 | 13.6 | 06/30/11 | no | Blue Plains | 2.944 |
| VPA01522 | FVBFB-03 | 26.5 | 06/30/11 | no | Blue Plains | 3.344 |
| VPA01522 | FVCVM-01 | 40.1 | 06/30/11 | no | Blue Plains | 4.417 |
| VPA01522 | FVPJY-06 | 32.6 | 06/30/11 | no | Blue Plains | 3.164 |
| VPA01522 | FVTFB-01 | 9.8 | 06/30/11 | no | Blue Plains | 4.051 |
| VPA01522 | FVTFB-03 | 11.9 | 06/30/11 | no | Blue Plains | 4.025 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA01573 | WNRLF-09 | 14.2 | 07/31/11 | no | Blue Plains | 2.830 |
| VPA01573 | WNRLF-13 | 36.4 | 07/31/11 | no | Blue Plains | 3.705 |
| VPA01573 | WNRLF-10 | 28.1 | 10/31/11 | no | Blue Plains | 4.891 |
| VPA01573 | WNRLF-12 | 29.4 | 10/31/11 | no | Blue Plains | 4.959 |
| VPA01573 | WNRLF-13 | 26.7 | 10/31/11 | no | Blue Plains | 3.699 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|---------------------|---------------------|
| VPA01574 | ALFBY-01 | 19.4 | 12/31/11 | no | Blue Plains | 4.729 |
| VPA01574 | ALFBY-02 | 7.8 | 12/31/11 | no | Blue Plains | 5.055 |
| VPA01574 | ALFBY-03 | 17.6 | 12/31/11 | no | Blue Plains | 1.792 |
| VPA01574 | ALFBY-03 | 17.6 | 12/31/11 | no | MCI | 2.827 |
| VPA01574 | ALFBY-04 | 7.5 | 12/31/11 | no | Blue Plains | 4.194 |
| VPA01574 | ALFFS-13 | 10.6 | 11/31/11 | no | Blue Plains | 1.484 |
| VPA01574 | ALFFS-17 | 7.6 | 11/31/11 | no | Blue Plains | 3.130 |
| VPA01574 | ALJCW-01 | 38.9 | 05/31/11 | no | Blue Plains | 4.635 |
| VPA01574 | ALLRS-01 | 14.9 | 10/31/11 | no | Blue Plains | 3.100 |
| VPA01574 | ALLRS-02 | 14.7 | 10/31/11 | no | Blue Plains | 3.698 |
| VPA01574 | ALRLF-02 | 12.1 | 06/30/11 | no | Blue Plains | 4.645 |
| VPA01574 | ALRLF-04 | 8.3 | 06/30/11 | no | Blue Plains | 3.858 |
| VPA01574 | ALRLF-06 | 10.9 | 06/30/11 | no | Blue Plains | 3.681 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA01577 | GRBKF-01 | 16.0 | 11/31/11 | no | North River | 1.239 |
| VPA01577 | GRBKF-01 | 16.0 | 10/31/11 | no | North River | 1.516 |
| VPA01577 | GRBKF-02 | 19.0 | 10/31/11 | no | FQWSA | 0.773 |
| VPA01577 | GRBKF-02 | 19.0 | 10/31/11 | no | North River | 2.793 |
| VPA01577 | GRBKF-03 | 3.0 | 10/31/11 | no | North River | 2.856 |
| VPA01577 | GRGWH-09 | 8.9 | 07/31/11 | no | North River | 2.183 |
| VPA01577 | GRGWH-10 | 11.2 | 07/31/11 | no | Blue Plains | 4.217 |
| VPA01577 | GRGWH-10 | 11.2 | 07/31/11 | no | North River | 0.329 |
| VPA01577 | GRGWH-11 | 16.6 | 07/31/11 | no | Blue Plains | 2.877 |
| VPA01577 | GRGWH-12 | 10.5 | 07/31/11 | no | North River | 0.368 |
| VPA01577 | GRGWH-12 | 10.5 | 07/31/11 | no | Blue Plains | 2.254 |
| VPA01577 | GRLAR-01 | 28.0 | 10/31/11 | no | North River | 1.727 |
| VPA 01577 | GRLAR-02 | 18.6 | 12/31/11 | no | North River | 1.816 |
| VPA 01577 | GRLAR-02 | 18.6 | 12/31/11 | no | Purcellville | 0.266 |
| VPA01577 | GRRHM-02 | 4.6 | 09/30/11 | no | Blue Plains | 1.691 |
| VPA01577 | GRRHM-03 | 7.7 | 09/30/11 | no | Blue Plains | 2.979 |
| VPA01577 | GRRHR-02 | 6.9 | 07/31/11 | no | Blue Plains | 4.623 |
| VPA01577 | GRRLD-02 | 11.0 | 07/31/11 | no | Blue Plains | 3.624 |
| VPA01577 | GRRLD-05 | 13.0 | 07/31/11 | no | North River | 2.106 |
| VPA01577 | GRRLD-07 | 2.5 | 07/31/11 | no | North River | 1.401 |
| VPA 01577 | GRTMG-02 | 13.4 | 01/31/11 | no | Blue Plains | 2.388 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA03003 | NWDDS-01 | 14.3 | 12/31/11 | no | Blue Plains | 1.654 |
| VPA03003 | NWDDS-02 | 23.0 | 12/31/11 | no | Blue Plains | 1.029 |
| VPA03003 | NWDDS-07 | 23.5 | 12/31/11 | no | Blue Plains | 0.671 |
| VPA03003 | NWJHM-01 | 21.5 | 12/31/11 | no | Blue Plains | 2.934 |
| VPA03003 | NWLJV-03 | 16.0 | 12/31/11 | no | Blue Plains | 2.957 |
| VPA03003 | NWGCF-04 | 4.5 | 11/31/11 | no | Blue Plains | 5.063 |
| VPA03003 | NWGCF-05 | 6.3 | 11/31/11 | no | Blue Plains | 5.002 |
| VPA03003 | NWGCF-06 | 10.4 | 11/31/11 | no | Richmond | 3.631 |
| VPA03003 | NWJAG-01 | 11.3 | 11/31/11 | no | Blue Plains | 4.909 |
| VPA03003 | NWJAG-03 | 7.5 | 11/31/11 | no | Blue Plains | 3.170 |
| VPA03003 | NWJAG-04 | 9.7 | 11/31/11 | no | Blue Plains | 1.634 |
| VPA03003 | NWJAG-04 | 9.7 | 11/31/11 | no | SCWWA | 1.697 |
| VPA03003 | NWJAG-05 | 9.8 | 11/31/11 | no | Blue Plains | 3.235 |
| VPA03003 | NWJAG-06 | 5.6 | 11/31/11 | no | Blue Plains | 2.830 |
| VPA03003 | NWJAG-07 | 5.2 | 11/31/11 | no | SCWWA | 3.144 |
| VPA03003 | NWJAG-08 | 8.5 | 11/31/11 | no | Blue Plains | 2.797 |
| VPA03003 | NWJHM-02 | 5.7 | 11/31/11 | no | SCWWA | 2.713 |
| VPA03003 | NWCAB-01 | 17.6 | 10/31/11 | no | Richmond | 4.132 |
| VPA03003 | NWNCF-01 | 9.0 | 10/31/11 | no | Blue Plains | 2.620 |
| VPA03003 | NWNCF-02 | 12.7 | 10/31/11 | no | Blue Plains | 3.006 |
| VPA03003 | NWNCF-04 | 10.8 | 10/31/11 | no | Blue Plains | 2.790 |
| VPA03003 | NWNCF-13 | 16.9 | 10/31/11 | no | Blue Plains | 3.217 |
| VPA03003 | NWNCF-16 | 9.9 | 10/31/11 | no | Blue Plains | 3.043 |
| VPA03003 | NWNCF-18 | 4.0 | 10/31/11 | no | Richmond | 1.965 |

| Permit No | Field Designation | Net Acres in Field | Date Spread | Completed | Biosolids Source | Dry Ton Per Acre |
|-----------|----------------------|-----------------------|-------------|-----------|------------------|---------------------|
| VPA03010 | LUCAS-01 | 14.9 | 12/31/11 | no | Blue Plains | 3.087 |
| VPA03010 | LUCAS-04 | 12.0 | 12/31/11 | no | Richmond | 2.481 |
| VPA03010 | LUCAS-06 | 11.2 | 12/31/11 | no | Blue Plains | 2.732 |
| VPA03010 | LUDLH-01 | 1.6 | 12/31/11 | no | Blue Plains | 2.465 |
| VPA03010 | LUDLH-02 | 7.0 | 12/31/11 | no | Blue Plains | 1.127 |
| VPA03010 | LUDLH-02 | 7.0 | 12/31/11 | no | SCWWA | 1.304 |
| VPA03010 | LUDLH-03 | 13.5 | 12/31/11 | no | Richmond | 2.022 |
| VPA03010 | LUDLH-04 | 13.2 | 12/31/11 | no | Blue Plains | 0.299 |
| VPA03010 | LUDLH-04 | 13.2 | 12/31/11 | no | SCWWA | 3.527 |
| VPA03010 | LULJV-01 | 6.0 | 01/31/11 | no | SCWWA | 1.030 |
| VPA03010 | LUMRA-03 | 6.5 | 12/31/11 | no | Blue Plains | 1.213 |
| VPA03010 | LUNHJ-02 | 8.6 | 12/31/11 | no | Richmond | 2.570 |

SUMMARY OF BIOSOLIDS USE PERMITS

2011

At year end, Recyc Systems is the holder of 30 VDH BUR permits for the land application of biosolids.

At year end, Recyc Systems is the holder of 29 DEQ-VPA permits for the land application of biosolids. All of the twenty-nine permits include new sites not previously permitted.

At year end, Recyc Systems has three requests for DEQ-VPA permits outstanding. At year end, Recyc Systems has four modification requests outstanding to add sites to DEQ-VPA permits.

Recyc Systems is continuing the process to convert the VDH BUR permits into DEQ-VPA permits. At year end we have two permits left to convert into a DEQ-VPA permit. In addition we have two DEQ-VPA permits to modify for sites previously permitted in the VDH BUR permits.

Total acreage of permitted land application sites available for use in 2012:

- Recyc Systems has deducted land not available due to its being applied within 3 years or not available for other known reasons.
- Available acres permitted in both VDH BUR or DEQ VPA permits was counted once in the VPA permit.

As Of December 31, 2011

| | Permitted Acres | Available Acres for 2012 |
|--------------------------|-----------------|-----------------------------|
| VDH-BUR permits: | 121,610.10 | 2,868.40 |
| DEQ-VPA permits: | 98,717.00 | 74,571.85 |
| Pending New Sites: | | 5,725.20 |
| Total Available for 2011 | | 83,165.45 |

RECYC SYSTEMS, INC

Site Permit List

as of December 31, 20122

| LOCALITY | DEQ-VPA | | | VDH-BUR | |
|----------------|---------------|------------------|-----------------------------------|---------------|-------------------|
| | Permit Number | Gross Acres | Submitted Unpermitted Acres | Permit Number | Net Acres |
| ALBEMARLE | VPA 01574 | 6,847.20 | | BUR 89 | 4,123.80 |
| AMELIA | VPA 00811 | 1,100.20 | | BUR 132 | 917.10 |
| AUGUSTA | VPA 01583 | | 4,148.60 | | |
| BRUNSWICK | | | | BUR 120 | 3,193.00 |
| CAROLINE | VPA 00056 | 7,425.20 | | BUR 97 | 7,542.40 |
| CLARKE | VPA 01572 | 654.10 | | BUR 66 | 383.90 |
| CULPEPER | VPA 00057 | 19,203.34 | | BUR 69 | 21,372.80 |
| DINWIDDIE | VPA 00817 | 6,834.83 | | BUR 22 | 7,929.90 |
| ESSEX | VPA 00804 | 1,502.90 | | BUR 86 | 1,327.30 |
| FAUQUIER | VPA 00054 | 4,775.31 | 3,064.00 | BUR 4 | 14,557.30 |
| FLUVANNA | VPA 01582 | 433.90 | | | |
| GREENE | VPA 01577 | 3,225.90 | | BUR 118 | 2,694.10 |
| HANOVER | VPA 00801 | 471.40 | | BUR 5 | 7,075.60 |
| ISLE OF WIGHT | | | | BUR 137 | 536.60 |
| KING & QUEEN | VPA 00805 | 3,967.10 | | BUR 7 | 3,829.30 |
| KING WILLIAM | VPA 00826 | 327.10 | | BUR 8 | 1,644.40 |
| LANCASTER | VPA 00814 | 2,065.80 | | BUR 130 | 1,755.80 |
| LOUISA | VPA 00070 | | 526.20 | | |
| LUNENBURG | VPA 03010 | 2,952.10 | | BUR 119 | 1,652.50 |
| MADISON | VPA 00061 | 3,941.80 | 683.10 | BUR 116 | 5,912.00 |
| MIDDLESEX | VPA 00820 | 3,327.50 | | BUR 115 | 3,595.50 |
| NEW KENT | VPA 00800 | 272.60 | | BUR 140 | 185.50 |
| NORTHUMBERLAND | VPA 00816 | 507.10 | | | |
| NOTTOWAY | VPA 03003 | 6,853.50 | | BUR 104 | 6,713.20 |
| ORANGE | VPA 00060 | 11,239.70 | | BUR 6 | 14,517.80 |
| PRINCE GEORGE | VPA 00809 | 541.70 | | BUR 100 | 561.30 |
| RICHMOND | VPA 00821 | 729.30 | | BUR 61 | 719.20 |
| SHENANDOAH | VPA 01579 | 626.50 | | | |
| SOUTHAMPTON | VPA 01078 | 1,938.52 | | | |
| SPOTSYLVANIA | VPA 00058 | 2,559.40 | | BUR 95 | 1,896.30 |
| SURRY | VPA 00818 | 774.60 | | BUR 129 | 785.10 |
| SUSSEX | VPA 00827 | | 1,591.20 | BUR 135 | 1,850.30 |
| WARREN | VPA 01573 | 1,106.30 | | | |
| WESTMORELAND | VPA 00823 | 2,512.10 | | BUR 9 | 4,338.10 |
| TOTAL | | 98,717.00 | 10,013.10 | | 121,610.10 |

Recyc Systems, Inc
January to December 2011

| Locality | Permit # | Occurred This Period | |
|----------------|----------|----------------------|----|
| | | Yes | No |
| ALBEMARLE | VPA01574 | ✓ | |
| ALBEMARLE | BUR 89 | | ✓ |
| AMELIA | VPA00811 | ✓ | |
| AMELIA | BUR 132 | | ✓ |
| BRUNSWICK | BUR 120 | ✓ | |
| CAROLINE | VPA00056 | ✓ | |
| CAROLINE | BUR 97 | | ✓ |
| CLARKE | VPA01572 | | ✓ |
| CLARKE | BUR 66 | | ✓ |
| CULPEPER | VPA00057 | ✓ | |
| CULPEPER | BUR 69 | ✓ | |
| DINWIDDIE | VPA00817 | ✓ | |
| DINWIDDIE | BUR 22 | | ✓ |
| ESSEX | VPA00804 | ✓ | |
| ESSEX | BUR 86 | | ✓ |
| FAUQUIER | VPA00054 | ✓ | |
| FAUQUIER | BUR 4 | ✓ | |
| FLUVANNA | VPA01522 | ✓ | |
| GREENE | VPA01577 | ✓ | |
| GREENE | BUR 118 | | ✓ |
| HANOVER | VPA00801 | ✓ | |
| HANOVER | BUR 5 | ✓ | |
| HENRICO | BUR 103 | | ✓ |
| ISLE OF WIGHT | BUR 137 | | ✓ |
| KING & QUEEN | VPA00805 | ✓ | |
| KING & QUEEN | BUR 7 | | ✓ |
| KING WILLIAM | BUR 8 | | ✓ |
| KING WILLIAM | VPA00826 | | ✓ |
| LANCASTER | VPA00814 | ✓ | |
| LANCASTER | BUR 130 | | ✓ |
| LOUDOUN | BUR 3 | | ✓ |
| LUNENBURG | VPA03010 | ✓ | |
| LUNENBURG | BUR 119 | | ✓ |
| MADISON | VPA00061 | ✓ | |
| MADISON | BUR 116 | ✓ | |
| MIDDLESEX | VPA00820 | ✓ | |
| MIDDLESEX | BUR 115 | | ✓ |
| NEW KENT | VPA00800 | | ✓ |
| NEW KENT | BUR 140 | | ✓ |
| NORTHUMBERLAND | VPA00816 | ✓ | |

Recyc Systems, Inc

January to December 2011

| Locality | Permit # | Occurred This Period | |
|----------------|----------|----------------------|----|
| | | Yes | No |
| NOTTOWAY | VPA03003 | ✓ | |
| NOTTOWAY | BUR 104 | ✓ | |
| ORANGE | VPA00060 | ✓ | |
| ORANGE | BUR 6 | ✓ | |
| PRINCE GEORGE | VPA00809 | ✓ | |
| PRINCE GEORGE | BUR 100 | | ✓ |
| PRINCE WILLIAM | BUR 16 | | ✓ |
| RICHMOND | VPA00821 | ✓ | |
| RICHMOND | BUR 61 | | ✓ |
| SHENANDOAH | VPA01579 | ✓ | |
| SOUTHAMPTON | VPA01078 | | ✓ |
| SPOTSYLVANIA | VPA00058 | ✓ | |
| SPOTSYLVANIA | BUR 95 | | ✓ |
| SURRY | VPA00818 | | ✓ |
| SURRY | BUR 129 | | ✓ |
| SUSSEX | BUR 135 | ✓ | |
| WARREN | VPA01573 | ✓ | |
| WESTMORELAND | VPA00823 | ✓ | |
| WESTMORELAND | BUR 9 | | ✓ |